

**MONTHLY
INFORMATION
BULLETIN
OFFICE OF NAVAL INTELLIGENCE**



**THE GERMAN OFFICIAL ACCOUNT OF THE SEA BATTLE
OFF THE SKAGERRAK (JUTLAND)**

BY

COMMANDER O. GROOS, I. G. N.

Extracted and Translated FOR OFFICIAL CIRCULATION ONLY from "Der Krieg
zur See, 1914-1918, Nordsee, Volume V"

Translation by Commander W. P. Beehler, U. S. N. (Ret.)

Notes and sketches by Lieutenant-Commander H. H. Frost, U. S. N.

FEBRUARY, 1926

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SUPPLEMENT NUMBER FOUR

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(REPRINTED WITH REVISED SKETCHES JUNE, 1931)

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OFFICE OF NAVAL INTELLIGENCE
NAVY DEPARTMENT
Washington, D. C.

MONTHLY INFORMATION BULLETIN

SUPPLEMENT NUMBER 4

FEBRUARY, 1926

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DISTRIBUTION

In general: Bureaus of the Navy Department; all force commanders; all commanding officers
of capital ships, the larger patrols, destroyers, and submarines



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This is the fourth of a series of SUPPLEMENTS to the MONTHLY INFORMATION BULLETIN which it is proposed to issue from time to time as suitable articles come to hand. By this means it is hoped that the Office of Naval Intelligence may supply the medium for circulating to the forces afloat those articles upon service topics which, while valuable and interesting, are also confidential or otherwise restricted, and therefore unsuited for publication in the regular service journals or in the Naval Institute, and which because of their length can not be included in the regular issues of the BULLETIN.

CONTENTS

	Page
Preface by the Office of Naval Intelligence-----	V
Foreword by the author-----	VI
CHAPTER 7	
Development of the strategic situation up to the battle off the Skagerrak-----	1
CHAPTER 8	
Skagerrak—Plan of operations and strategic deployment-----	14
CHAPTER 9	
Skagerrak—From departure of the fleet to the cruiser engagement-----	33
CHAPTER 10	
Skagerrak—First phase—Action of the battle cruisers and pursuit of the British to the northward-----	54
CHAPTER 11	
Skagerrak—Second phase—The engagement of the battle fleets-----	81
CHAPTER 12	
Skagerrak—Third phase—From 7.30 p. m. to nightfall-----	107
CHAPTER 13	
Skagerrak—Fourth phase—Night-----	158
CHAPTER 14	
Skagerrak—Last phase—June 1, 1916-----	188
APPENDIX 5	
Organization of the Grand Fleet on May 30, 1916-----	228
APPENDIX 7	
Organization of the High Seas Fleet on May 31, 1916-----	231
APPENDIX 9	
Expenditure of ammunition by German ships during the battle off the Skagerrak-----	234
APPENDIX 11	
Hits received by German ships-----	235
APPENDIX 12	
German guns put out of action-----	236
APPENDIX 14	
German personnel losses in the Battle off the Skagerrak-----	237
APPENDIX 17	
Summary of the most important radio messages and signals during the battle off the Skagerrak-----	238
Sketches—Jutland—War College Edition (Revised June, 1927)	
APPENDIX 18	
List of British destroyers and their distinguishing pendants	
APPENDIX 19	
Key to system of reference positions used by German Naval Forces	

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PREFACE BY THE OFFICE OF NAVAL INTELLIGENCE

(REVISED JUNE, 1931)

This SUPPLEMENT is a translation of parts of "The War at Sea, 1914-1918, North Sea, Volume V," from the German of Commander O. Groos, I. G. Navy. This book is the German official naval history of the war and is issued by the Office of Naval Intelligence.

The following parts relating to the battle off the Skagerrak have been translated:

Chapters 7 to 14, inclusive.

Appendixes 5, 7, 9, 11, 12, 14, 17.

The German text is accompanied by an elaborate series of large charts of the battle, but as these are printed in three colors the cost of reproducing them is prohibitive.

The translation has been made by Commander W. P. Beehler, United States Navy (retired). The translation has been examined and revised by Lieut. Commander H. H. Frost, who has prepared a series of explanatory notes which are inserted in the text in brackets. A series of his sketches, previously issued by the Office of Naval Intelligence and for which the plates were still available, was inserted in the original issue of this supplement. In this reprint appears, in place of the former sketches, the War College edition revised in June, 1927, by Lieut. Commander H. H. Frost, United States Navy and Mr. G. J. Hazard, technical assistant, Naval War College. Also in this reprint have been added Appendix 18 giving list of British destroyers and their distinguishing pendants (numbers on bows are mentioned in the text), and Appendix 19 giving key to system of reference positions used by the German Navy.

Particular attention is invited to Appendix 7, which gives the organization of the High Seas Fleet on May 31, 1916. This should be examined before reading the text and frequently consulted thereafter. Attention is also invited to Appendix 17, which shows the German radio messages and visual signals sent during and after the battle. In connection with position numbers mentioned in these messages refer to the key in Appendix 19.

It is recommended that the text, the signals, and the sketches be covered at the same time; when studied in conjunction they will give the clearest conception of the battle. (The times used in the sketches are G. M. T. and are therefore one hour less than those used in the text and in the German signals.)

This account is considered to be by far the best and most interesting account of the battle off the Skagerrak thus far published. Its descriptions are particularly accurate and detailed and the reasons for the various decisions on the German side are presented in full, including even the estimates of the situation made by captains of individual destroyers and submarines.

NAVY DEPARTMENT
Washington, June, 1931.

HAYNE ELLIS,
Captain, United States Navy,
Director of Naval Intelligence. ✓

N. B.—The notes in brackets [] are by Lieut. Commander H. H. Frost, U. S. N.

“DER KRIEG ZUR SEE,” 1914–1918—NORDSEE, VOLUME V

By Commander O. GROOS, I. G. Navy

FOREWORD BY THE AUTHOR

The present Volume V of the “Krieg zur See” (North Sea) comprises the period between January and June, 1916. In this particular period the naval warfare in the North Sea went through a fundamental change. After a year of strictly defensive warfare the High Seas Fleet was exerting every effort to gain a decision. On the German side new men had taken over the command of the fleet, and thus from the beginning of the year 1916 all operations of the German High Seas Fleet were founded on the primary mission of seeking battle. A survey of the general situation on land indicated the desirability of a sharper offensive at sea. Thus it was not difficult to obtain the approval of the Kaiser for more extensive operations planned by the German commander. An advance of the entire High Seas Fleet into the Hoofden [“Hoofden” is the German name for the southern part of the North Sea between the Harwich coast and the Netherlands. See fig. 9] early in March was followed in April, 1916, by the bombardment of the coast of England near Lowestoft. [See fig. 7.] Since the submarines had to be withdrawn from the commerce warfare which had just been begun on account of the decision of the political leaders, they were employed in operations with the fleet and in the operations which were conducted during and up to the end of May were utilized for strictly military service.

This sudden increase in the activities of the German fleet very soon brought about a counteroffensive from the English. At first, however, this did not extend beyond several air attacks on the German airship hangars supported by surface craft. Only after the bombardment of Lowestoft did the British strategy lead to a sharper offensive with the purpose of bringing on a fleet action. This was further influenced by the fact that the Russian ally was suffering from the effects of the blockade as much as the Germans, and for that reason desired a more active employment of the British Fleet to gain a decision. Thus the English had planned a large-scale fleet operation for the end of May quite similar to the Germans, and the strategic situation in the North Sea thus culminated of itself in a clash which has been designated as the Battle off the Skagerrak (Jutland).

On the naval Battle off the Skagerrak, in which more ships were engaged than at any other time in the history of the world, much has already been written. The two fleet commanders, Admiral Scheer, in "Deutschlands Hochseeflotte im Weltkriege" and Admiral Jellicoe in the "Grand Fleet, 1914-1916," have already given detailed accounts. Personal experiences in the battle have been given by von Hase in "Die Zwei weissen Volker" and by Lieut. Commanders H. W. Fawcett and G. W. W. Hooper in the volume entitled "The Fighting at Jutland." Then in England the work of Sir Julian Corbett, "Naval Operations, Volume III," was followed by the "semi-official" "Narrative of the Battle of Jutland"; the official account of the battle was published by the Admiralty itself. Both of these publications had the drawback that, aside from the already published reports of Admiral Scheer, the authors had no German material available.

On the other hand, in the preparation of the German account the complete official reports practically without exception were ready at hand. As early as December, 1920, public opinion in England forced the Admiralty to lay before the Parliament the so-called Blue Book, containing nearly all of the war diaries, battle reports, and charts of the British vessels engaged in the battle with apparently few exceptions. Although for the layman this great mass of detail is hardly comprehensible, for the naval expert they offer a mine of authentic data on which to judge the developments on the British side, and all the more important since they were not written for publication. And since the compiler of this volume had also available the German official data which was no less comprehensive and detailed, it was possible for the first time to compile an account which was based on the official data of both sides. This differentiates the following from any accounts which have been published by either side to date.

In giving an account of a naval battle the author must proceed along different lines from the method of describing a battle on land. In naval warfare the military strength is concentrated in such a few units, while the effects of individual shells, torpedoes, and mines are of such great importance that they must be described in all detail where possible. Further, the developments of the battle, due to the high speed of the ships and the limited space and concentration of fire, take place with such rapidity that minutes and seconds involved in the evolutions and decisions of the leaders correspond to days and hours in the land engagements. In the rush of events and the mass of detail the human memory would fail were it not for the fact that, on the battleships at least, everything pertaining to the navigation of the ship, the employment of the armament and propelling machinery, was written down on the spot, even during the height of the battle,

and the loss in battle of any one station automatically necessitated taking up the record by another. Thus, on the German as well as the English side, there is available a wealth of material comprising observations, records of times, sketches, and navigational fixes, on the part of the vessels engaged, which seems unbelievable to the layman. Thus, in general, it is not the lack of material but rather the superabundance which makes for the difficulty of compiling an authentic account. No individual observer is capable of recording from one station more than a small part of the developments which are taking place, and as the action progresses these individual observations are found to contain more and more errors and contradictions. This is particularly true of the courses plotted and the battle sketches of the individual ships. These often show considerable errors in the navigational fixes, and in particular errors in latitude and longitude, which can only be reconciled by numerous comparisons and checking back. In the case of the light cruisers, destroyers, submarines, and airships, even these reports are sometimes lacking entirely, so that in some phases of the battle it is impossible to state with any degree of accuracy the exact location of some of these light forces. In spite of this the chart representations of the battle are so near the truth that they can be accepted as historically accurate as a whole.

The gunnery reports are sufficiently complete to permit about 65 per cent of all the major caliber hits to be exactly determined on both sides and recorded on the charts and in the text with the time.

On the other hand, there were, further, about 10,000 German and English radio messages and 300 detailed battle reports and war diaries to study and fit in as a mosaic into the general account as a whole. Although in the text and on the charts no approach can be made to the breathless developments of the battle as they actually occurred, yet the complete account furnishes a comprehensive view of the whole situation which could not be obtained by any observer of the battle, even the force commanders themselves. In such a reconstruction of the events of the battle there is the danger that the commanders of the forces might be assumed to have a much more complete knowledge of the situation than could have been the case in reality and on which they had to base their decisions. In this mistake Admiral Jellicoe saw the greatest fault of the British accounts. Even the work of Sir Julian Corbett is faulty in this respect, as he is too prone to attribute motives in particular to the German commander in chief based on information after the event. This would probably not have occurred had the author been an eyewitness of the battle. On the other hand, it must be stated, in order that the reader might correctly judge the account, that the compiler of this volume was present during the battle as navigator of the *Von der Tann*.

In regard to the actual developments of the battle there is hardly room for difference of opinion among the naval experts after the wealth of material presented. But even to-day in England there is considerable strife in regard to the decisions of the commanders in the battle, which has not been silenced by the publication of the official and "semiofficial" accounts. Thus, a statement of the Admiralty has been singled out of the work of Sir Julian Corbett which is in direct contradiction to the opinion of the Lords of the Admiralty, particularly the tendency to minimize the principle of seeking battle and fighting it through to a decision. But even the official account of the Admiralty has not received general acceptance, and, as is shown by extracts in the appendix, is in error in some particulars, as pointed out by Admiral Jellicoe. On the other hand, it must be pointed out that the present volume has been submitted to the various German commanders who participated in the battle, and in particular Admiral Scheer and Admiral Hipper have expressed their thorough approval of the statements contained therein. As a result this work proves that the German claim to a victory at Jutland withstands the most searching historical investigation. It must be a source of profound satisfaction to the German nation to know that in this mighty test the morale, character, and intelligence, as well as the technical accomplishment, in this battle were so gloriously proven. The example which these men set on the German ships at Skaggerrak in fighting, suffering, and dying is a holy legacy bequeathed the nation. In the words of Friedrich the Great. "It is not necessary that I live, but rather that I do my duty, that I fight to save my country."

MARCH, 1925,

THE WAR AT SEA—NORTH SEA, VOLUME V

CHAPTER 7

DEVELOPMENT OF THE STRATEGIC SITUATION UP TO THE BATTLE OFF THE SKAGERRAK

On May 8, 1916, the auxiliary mine-sweeping flotilla of the North Sea, under Lieut. Commander Walter Krah, had succeeded in locating the approximate position of the English mine field which the *Seydlitz* had struck in standing out to participate in the operations against Lowestoft. This barrier lay to the northward of Borkum Reef Shoals, contained two different types of mines, and extended for about 15 miles in a northeasterly direction. At about the same time Mine-Sweeping Division III, Commander Eberhard Wolf-ram, discovered another mine field which was laid by an enemy submarine near the mouth of the Elbe, which, owing to its position on the course from the Elbe to the Jade, might have proved exceedingly dangerous had it not been discovered in time. The commander in chief decided to have the *Seydlitz* mine field swept as soon as possible in order to secure a mine-free course from the middle of the German Bight, which was essential if the fleet were to put to sea unobserved. [That is, from the Dutch coast.]

The rapid completion of this work was all the more essential, as beginning May 17 the entire High Seas Fleet would be ready in all respects for battle. A large number of submarines being available for joint operations with the fleet, this period of relatively great strength was to be utilized to the utmost for new offensive operations.

On April 24, while Admiral Scheer was returning with the High Seas Fleet from the operations against Lowestoft, he received a telegram from the naval staff while still at sea, stating that in spite of the policy for the resumption of submarine warfare which had been decided on at the beginning of the month, until further orders such commerce raids were to be conducted only in accordance with the "Rules for prizes." The occasion for this order was brought about by a note from the United States of America as a result of the sinking of the French liner *Sussex* in the English Channel. The commanding officer of the submarine had mistaken this vessel for

a mine layer, therefore a man-of-war, on account of the peculiar-shaped superstructure and gray painting, and had therefore attacked it with torpedoes forthwith. These new instructions ordered that in every case before sinking an enemy ship or neutral carrying contraband the submarine must come to the surface. This maneuver, according to the views of the commander in chief, was in contravention to the peculiar nature of the weapon and rendered the submarine helpless against treacherous attack, so that great losses must certainly be incurred without corresponding chances of success. This point of view was adequately confirmed by the latest operations against the west coast in which the leader of submarines, Commander Hermann Bauer, had personally participated on the *U-69*.

With the increasing practice of arming enemy and neutral steamers and the customary misuse of neutral flags and markings, Admiral Scheer was not able to assume the responsibility for conducting submarine warfare in accordance with the "Rules for prizes."

On the same date on which the telegram from the naval staff was received he therefore recalled by radio all the submarines on the west coast and notified the chief of the naval staff by telegram that, much as he regretted the necessity for the action, the submarine commerce war must cease, although he was convinced that such effective warfare against British commerce would be a decisive factor on the outcome of the war.

Already, on May 4, the commander in chief had proposed to the naval staff a new method of procedure which would permit at least the partial employment of submarines and not keep them wholly in idleness while at the same time avoiding further political conflict with neutral powers until the situation was cleared up. He was forced, however, to withdraw these proposals on the same day when the answer of the German Government to the United States became known. In this note it was stated, without previous consultation with the naval authorities, that the German ships had received instructions, in accordance with the accepted rules of international law regarding the search and seizure of merchantmen, not to sink any merchantman even in the restricted areas without warning and saving the personnel, even though the vessel attempted to escape or to offer resistance. The demands of the political leaders that new conflicts with neutral powers be avoided under all circumstances could therefore not be made to agree with the military necessity, so that the submarine commerce war which had hardly begun had to be sacrificed again to the opposition of the politicians.

Under these circumstances the efforts of the commander in chief to employ the High Seas Fleet in more offensive operations became of greater moment, and thus the fact that a large number of submarines

had become available for strictly military service against enemy men-of-war and bases brought with it a certain advantage. Estimates as to the manner in which these submarines could be most usefully employed in joint tactical operations with the fleet led to the plan for May 15. In addition to the previously described operations of submarines on the blockade lines Fair Island—Marsten and Peterhead—Egero, it was planned to send as many as possible of the torpedo submarines to the east coast of England to occupy stations near the most important man-of-war harbors, then by means of a sortie of the fleet to draw the enemy ships out of the harbors and toward the waiting submarines.

On the English side the motives which were to lead to greater offensive measures were also increasing. The fact that the enemy after a long period of inactivity had been able to make another raid on the English coast and escape unpunished had stirred public opinion to the utmost. Even though this excitement had not yet reached the stage of panic, the Admiralty deemed it necessary to take measures to strengthen the public confidence in the fleet. (Corbett: *Naval Operations*, vol. 3, p. 313.) Mr. Balfour, the First Lord of the Admiralty after the resignation of Churchill, therefore wrote to the mayors of Lowestoft and Yarmouth, stating that the fleet would be reorganized in their bases in such a manner that a repetition on such raids as occurred on April 24 could not take place without grave danger to the attacking forces. Up to then it had been considered necessary to hold the major portion of the fleet in the north. In this manner any extensive operation of the enemy such as an "invasion" could be readily combated, but a "raid" was not so easily coped with. Now, however, since a large number of newly constructed units were ready for active service, and in this manner the relative strengths of the two fleets considerably improved, not only were additional forces available for coast defense but in fact a portion of the Grand Fleet itself might be sent to the southern waters without endangering the fleet defenses at any other point. Such a regrouping of the fleet had been in fact considered since the beginning of 1916 but had had to be postponed on account of the old difficulty of establishing sufficient bases which were safe from submarine attack.

There were, however, other influences that were pressing the British fleet to greater offensive undertakings. Since New Year, 1915, the Russian Captain (later Finnish Commodore) von Schoultz had been liaison officer with the Grand Fleet. This officer regarded the "wait and see" policy as a very doubtful expedient.

Aside from the fact that he considered the British hunger blockade with the holding back of the fleet a violation of international law, he

believed the starvation of the enemy by this means to be faulty from a military standpoint.

According to his views this method of blockade, in so far as it affected neutrals, was further a distinct disadvantage to some of the Allies themselves. This applied principally to Russia, which country, as well as the Central Powers, was cut off from its communications with the industrial nations of the west. Before the extension of the blockade Russia had received a large amount of supplies through Scandinavia, such as farm and other machinery, locomotives, rails, cloths, etc. Now, with the extension of the blockade lines all these importations ceased and the only route left open for such supplies was over the northern polar sea, if one excepts the long and expensive haul over the already much overcrowded Siberian railway. Anyone who had followed the situation closely could observe, in accordance with the views of the Russian captain, that the blockade which was directed against the Central Powers was at the same time dragging down Russia, since this nation had been lacking in important industrial equipment from the beginning of the war.

Under these circumstances it was to be feared that the disorganization which had occurred in the Russian Army in Galicia due to lack of proper military equipment would be repeated in the next spring and summer in the north, where the German fleet covered the left wing of the army. Captain von Schoultz therefore held it to be his duty to stress the drawbacks of the blockade to the British Admiralty as well as to the Russian general staff, to recommend a consolidation of the allied naval front, and that the English fleet, or at least a portion of it, should extend their operations into the Baltic.

While the Russian captain was working out a memorandum to this effect he was in constant touch with the leading authorities of the Admiralty—the first sea lord, Admiral Jackson, and the chief of staff, Rear Admiral Oliver.

The latter pointed out the difficulties of carrying out military operations in the Baltic and quoted as an example the unfortunate attempt to force the Dardanelles; further, he showed that any attempt on the part of the British fleet to penetrate the Baltic would be countered by a German occupation of the Danish islands which would result in cutting off the fleet from its bases.

Even Captain Schoultz believed that extensive operations in the Baltic were out of the question until the German fleet could be decisively defeated in the North Sea. A victory in this area would, moreover, give the British fleet a free hand and also exert a marked influence on the further course of the war. A continuation of the war ad infinitum threatened to cause the industrially weak nations

to drop out of the allied ranks, thus weakening England's own position. According to his views, then, it was essential that the strategy at sea be diverted into more active channels; that the German fleet be brought to battle and the consolidation of the sea front effected; otherwise the consequences during the coming summer and winter might prove a very unsavory surprise to the allied forces.

By consolidation of the front at sea he meant a closer strategic, and in certain respects, tactical cooperation of the allied fleets, which should take the form of a large-scale demonstration in the North Sea, near the Skagerrak and the Kattegat, this undertaking to be aided by the detachment of light cruisers, destroyers, and submarines from the fleet for the further extension of these operations into the Baltic, which was finally to culminate in a well-planned offensive of the combined allied fleets in that area.

As early as the middle of December, 1915, he delivered a memorandum outlining the above plan to Mr. Balfour and the First Sea Lord of the Admiralty, Admiral Jackson, and early in 1916 certain English newspapers contained articles which indicated a coming change in the allied strategy at sea tending toward a more energetic offensive. Such an article by Mr. David Hannay in the *Morning Post* closed with the following words: "The Baltic is the only theater of war where the British fleet has not as yet fulfilled its mission of controlling the sea. Only the expressed inability of the fleet to accomplish this task could justify the failure to make an attempt in this direction."

This new expression of public opinion coincided with the views of the Russian liaison officer and was a source of great satisfaction to him.

On January 24 Captain Schoultz proceeded from London to St. Petersburg in order to further discuss the question of cooperation of the British and Russian fleets in accordance with the plan which he had suggested. Before his departure, however, he had had another interview with Balfour in which the latter expressed the opinion that the British Admiralty could not alter its naval strategy until the German fleet had been decisively defeated. When such a defeat could be expected was difficult to prophesy. The Grand Fleet was in constant readiness for battle but did not wish to be drawn into a previously prepared trap near the German coast.

On February 17 a special meeting of the war committee, in which Admiral Jellicoe participated, was called, partly on account of the memorandum of the Russian liaison officer and partly owing to the pressure of public opinion. At this meeting the general strategic situation was thoroughly discussed from this standpoint, and primarily the possibility of a large-scale offensive based on the tenta-

tive plans of Lord Fisher was considered. Although this plan had not been worked out in all its details, the basic idea was the shattering of the German plans by forcing the enemy to defend both the North Sea and Baltic coasts at the same given instant, thus compelling him to divide his fleet.

The means for accomplishing this purpose were either to attempt the occupation of one of the German islands in the North Sea as a base for aircraft and submarines or to blockade the German river mouths by means of mines and sunken ships. In the meantime, however, the difficulties in connection with the execution of such a plan had considerably increased. As a result of the increased range and effectiveness of the field artillery of the army such an island could not be held for any length of time if it were taken under fire from the mainland. Further, the necessary troops for the landing force were lacking. Also the increased effectiveness of the mines and submarines, aside from the resistance which could be expected from the German High Seas Fleet, would very considerably increase the difficulties of keeping open a line of retreat for a fleet attempting operations in the Baltic. For these and other reasons it was finally decided that a naval offensive of such scope as contemplated by Lord Fisher was no longer practicable. Further, grave objections were raised against the plan of blockading the German rivers with ships and mines. If this bottling were to be effective, a larger number of vessels would be required than were available for this purpose owing to the severe shortage of freight steamers. As a result of the transfer of a large number of workmen from the shipyards to the army the construction of merchant vessels could not keep pace with the losses by mines and submarines. (Corbett: *Naval Operations*, vol. 3, p. 314.)

Efforts had already been made to have this group of workmen withdrawn from the army, and, furthermore, the construction of merchantmen had been declared to be "war work"; but even then there were grave fears that the overseas imports could not be maintained at the normal level. The use of mine barriers alone had the disadvantage that they required constant supervision of warcraft if they were to remain effective and to prevent sweeping of them. This, in turn, was only possible provided the German fleet had previously been defeated.

From the above consideration it was concluded that the existing policy of watchful waiting could not be abandoned; all that could be undertaken were further efforts to induce the German fleet to make a sortie from its bases and to lure them into a trap.

For this purpose the previous distribution of the fleet, in the opinion of the Admiralty, left much to be desired, and even before the bombardment of Lowestoft this problem had been the subject

of a new conference in Whitehall at the beginning of April. At this meeting the First Lord of the Admiralty expressed the opinion that aside from the fact that the existing distribution of forces did not afford the south coast any protection, the fleet was based too far to the northward to be effective in damaging or cutting off the retreat of an enemy force repeating the bombardment of Yarmouth, Scarborough, and Hartlepool, or such similar raids as were conducted in 1914. As long as this concentration of forces was maintained in the far north, the enemy would not commit suicide by venturing so far in their sorties that they could be brought to battle, and one could only expect further minor operations of German airships and light forces even though it was to be assumed that under Admiral Scheer the fleet operations would be carried out with greater energy than heretofore. In order to be prepared for this the Grand Fleet must be based further to the southward and take station at Rosyth and the Humber. Steps had already been taken to prepare these bases for the necessary number of ships, but the regrouping of the fleet could not be carried into effect before all necessary preparations had been fully completed. The only means available for affording a temporary relief to the situation was the detachment of the fast Fifth Battle Squadron from the fleet and to reassign it to the Battle Cruiser Fleet. There were in fact certain reasons why this particular measure should not be longer delayed. As far as was known the *Lutzow* and *Hindenburg* would soon be ready for active service, and this particular fact made it necessary to strengthen the Rosyth forces. For this reason it was essential that the Fifth Battle Squadron replace the Third Battle Squadron, which consisted of the slower predreadnought type of ship, at the earliest possible moment.

This solution of the problem found in Admiral Beatty a staunch advocate. Admiral Jellicoe, on the other hand, saw the necessity for raising serious objections to this plan. Great as was the speed of the Fifth Battle Squadron it still did not appear probable that it could bring the *Lutzow* and *Hindenburg* to battle. Even more important was the fact that according to the battle plan the ships of the *Queen Elizabeth* class were to be utilized as a fast division, which, being kept free from a close tactical relation to the rest of the fleet, could be employed to bring pressure on one wing of the enemy forces or some other portion of the line and thus overcome the disadvantage of the previous rigidity of the battle line. Therefore it was decided that for the time being the Fifth Battle Squadron should remain with the fleet and the contemplated reorganization of the fleet should be held in abeyance until the battleships under construction were ready for commissioning and the strength of the fleet

had been brought up to 24 battleships. In the meantime it was realized that the east coast had to be left as before without adequate protection from enemy attacks. It was, however, necessary to assume this risk if one were to consider the plan from the larger viewpoint. Further, it was not impossible that exactly this weakness would incite the enemy to offensive operations without the necessity for dividing the Grand Fleet.

Every effort, however, must be made to bring the enemy to battle in this case, and as early as the middle of April there appeared to be certain possibilities in this direction. At this time the Grand Fleet had been brought up to the strength contemplated. On the 15th, therefore, the commander in chief was informed that the proposed regrouping of the forces should be effected as soon as the outer anchorages of the Firth of Forth had been effectively protected from submarines. Since the Humber docks had also been rebuilt to accommodate the heavier ships, the Third Battle Squadron and the Third Cruiser Squadron should be transferred to that base. With this arrangement it was expected that in any future attacks on the coast the enemy would be forced to support the attacking forces with battleship squadrons in the immediate vicinity of the above-mentioned forces; this would give the awaited opportunity to bring the enemy to battle, but only when the battle squadrons were in a position to support the Humber forces. Admiral Jellicoe was therefore prompted to propose that at least some of his ships be transferred from Scapa to the Firth of Forth as work on the barrier at the latter base progressed sufficiently. At the same time he was informed that the matériel which had been assembled for the barrage across the Dover Straits would be employed at the Firth of Forth. Before these instructions could be carried into effect, however, there followed the attack on Lowestoft. The expected blow of the enemy had fallen before the contemplated countermeasures could be completed. Thus the long-desired possibility of coming to battle was missed. Something had to be done immediately to improve the preparations in case of a repetition of this raid. The Admiralty therefore hastened to demand new proposals from the commander in chief. "The enemy," so they stated, "has felt out our weakness in the southern waters by a practical demonstration and will probably carry out further operations in these waters as soon as possible." Commodore Tyrwhitt had only one light cruiser at his disposition after the battle near Lowestoft, and until the other vessels were repaired the protection of this area would devolve on the commander in chief of the Grand Fleet. Admiral Jellicoe was not inclined to abandon the previous strategy of keeping all his valuable ships back and maintaining the concentration of forces in the north. His one

concession was that he declared himself ready to send the Third Battle Squadron and the Third Cruiser Squadron instantly from Rosyth to the south, not to the Humber but to the Swin, the northern exit from the Thames, or to Sheerness or Dover. Further, the submarines which had been previously based on Rosyth should be transferred to Yarmouth. If in addition to this mine fields were laid near the east coast, these measures should provide sufficient protection against further bombardments of the coast, while the Third Battle Squadron, together with the *Dreadnought*, when repairs on her had been completed, would form a sufficiently strong force to oppose the German battle cruisers at their present strength. This proposal was acceptable to the Admiralty, with the exception of the mine barriers, which were considered detrimental to the freedom of action of the English forces and might prove dangerous. On May 2 the Third Battle Squadron and the Third Cruiser Squadron arrived in Sheerness, while the submarines which were stationed at Rosyth were transferred to Yarmouth, with the exception of two which remained behind.

These were, however, only temporary measures and it was evident since the German attack on the coast that if the regrouping of the fleet was to be effected at all it should be done without further delay. Admiral Jellicoe was not prepared to undertake this regrouping until the antisubmarine defenses to the eastward of the Forth bridge and in the Humber had been completed. Only then did he contemplate basing one squadron of battleships and the First Cruiser Squadron permanently at the Humber while the balance of the fleet was moved from Scapa to the Firth of Forth.

In order to reach the final decision, a meeting was held at Rosyth on May 12, at which the First Lord of the Admiralty presided. Here the conclusion was reached that, aside from the question as to whether or not it was proper to move the concentration of the fleet from the north to the south either permanently or temporarily, the consolidation of the Firth of Forth as the principal base of the fleet was a matter of urgent military necessity. Admiral Jellicoe was also convinced of this, but, as a result of his observation and experience, held that Scapa should be retained as a secondary base, since it offered unusual opportunities for the training of the fleet as well as a base for the Tenth Cruiser Squadron and the forces employed to support the vessels maintaining the commerce blockade. As a third base the Humber should be placed in condition. At the same time it was decided to form a new Fourth Battle Squadron, consisting of all battleships which were armed with 12-inch guns, to be based either at the Humber or some other southern port in accordance with the requirements of the situation. The Forth itself

would be reconditioned in order to accommodate not only the battle cruisers which were stationed there but also the First and Second Battle Squadrons, as well as the Second Cruiser Squadron and the light craft attached to it. It was hoped that all this could be accomplished before the beginning of winter.

No agreement could be reached on the question as to whether it was advisable or necessary to transfer further units from the fleet to the south. As to the proposal that the Fifth Battle Squadron be detached from the fleet and assigned to the Battle Cruiser Fleet, Admiral Jellicoe renewed his opposition and would only agree that this squadron or the newly organized Fourth Battle Squadron be sent to Rosyth when opportunity offered. But since at that time the Third Battle Cruiser Squadron (*Invincible*, *Inflexible*, *Indomitable*) had been sent to Scapa for training, the commander in chief proposed to replace them during this period by ships of the *Queen Elizabeth* class. Thus it came about, as the day of battle approached, the distribution of the fleet was quite different from that assumed in the battle orders. [See fig. 7 for its distribution.] In the opinion of the commander in chief one particular detail of this regrouping violated the fundamental principle of these orders. The fast division, so long as it was based on the Firth of Forth, was not under the immediate orders of the commander in chief.

Another fact which served to weaken the existing organization of the Grand Fleet was that at this identical time a reassignment of the destroyer flotillas was about to be effected. In accordance with a decision which had been reached in August, 1915, the Grand Fleet was to have been assigned six flotillas as soon as the building program could be completed, one for each battle squadron and one for the battle cruisers. In order to accomplish this, the existing number of destroyers had to be increased from 65 to 100, and this could not be done until the older vessels of the First, Second, and Fourth Flotillas had been replaced by new vessels. This program was well under way when early in 1916 the urgent need for light cruisers made a further reorganization imperative. In a conference which took place on January 17 it was then decided to reorganize the flotillas by reducing them from six to four in order to make a number of flotilla leaders available for this service. In this manner, however, the flotillas, three consisting of 24 boats and one with the battle cruisers of 28 boats, became unwieldy. On March 28 Admiral Jellicoe made the following suggestions: The formation of five flotillas, four to consist of 18 boats, of which 2 would form the matériel reserve of the fleet and one flotilla of 28 boats for the battle cruisers, each flotilla to be divided into two half flotillas and each of these to be led by a light cruiser or flotilla leader. The most

important innovation was, following the German practice, that all destroyer flotillas were placed under the command of a single leader, commodore of the flotillas (Commodore "F"). This officer was assigned a light cruiser, H. M. S. *Castor*, as flagship. Owing to the constant influx of new boats these flotillas were in the process of reorganization and the commodore of the flotillas had had no opportunity to exercise his forces in tactical maneuvers before they were put to the decisive test.

The war distribution of the "Grand Fleet" at the end of May, 1916, was approximately as follows [see fig. 7]

At Scapa Admiral Jellicoe had at his disposal the First and Fourth Battle Squadrons, the Third Battle Cruiser Squadron, the Second Cruiser Squadron (armored cruisers), the Fourth Light Cruiser Squadron, and the Fourth, Twelfth, and only a part of the Eleventh Destroyer Flotillas; in all 35 destroyers ready for service, with 3 light cruisers and 4 flotilla leaders. In addition to this there was one balloon ship and one aircraft tender. [Also the destroyer *Oak* and light mine layer *Abdiel*, attached directly to the commander in chief.] (The Third Battle Squadron and the Third Cruiser Squadron had been sent on May 2 to the defense of the coast near Sheerness.) At Cromarty there were assembled the Second Battle Squadron and the First Cruiser Squadron, together with the balance of the Eleventh Destroyer Flotilla, consisting of 10 boats and 1 flotilla leader. [See fig. 10 for a summary of the vessels in the Grand Fleet, or Appendix 5.]

At the Firth of Forth under the command of Admiral Beatty were assembled the First and Second Battle Cruiser Squadrons, the Fifth Battle Squadron, the First, Second, and Third Light Cruiser Squadrons, and 27 destroyers, among which were 10 boats of the Thirteenth Flotilla, while the balance consisted of two divisions of the Ninth and Tenth Flotillas which had been reassigned from the Harwich force, since otherwise the number of boats available with the battle cruiser fleet would have been insufficient for the necessary antisubmarine screens. Also the *Engadine*, the second aircraft tender of the fleet, lay at Rosyth. Finally, there was the recently organized submarine flotilla, the Eleventh, which was designed to operate to the northward of the line Horn Reef to Flamborough Head, while the area to the southward of this line was to be patrolled by the submarine flotillas based on Harwich and Yarmouth.

When the Grand Fleet put to sea on May 30 the following vessels had to remain behind in the docks and harbors, viz, the battleships *Royal Sovereign*, *Queen Elizabeth*, and *Emperor of India*, and 17 destroyers. The fleet was comprised during the battle of 24 dreadnoughts, 4 *Queen Elizabeths*, 9 battle cruisers, 26 light cruisers,

5 destroyer leaders, and 74 [this apparently includes both *Oak* and *Abdiel*] destroyers.

Aside from this most powerful fleet which the world had ever seen, there still was the Harwich Force available for employment against the enemy, consisting of 5 light cruisers, 2 flotilla leaders, and about 17 destroyers, although it was doubtful from the beginning whether or not these forces could be utilized at a given instant owing to their great distance from the scene of action.

The German High Seas Fleet [see Appendix 7 for the complete organization of the High Seas Fleet], on their side, was concentrated principally in the Jade. Aside from the fleet flagship there were assembled ships of Battle Squadrons I and III, totaling 17 first-line ships, of which the *König Albert* was not ready for service. The latest battleship, the first to be equipped with 38-cm. guns (15-inch) was S. M. S. *Bayern*. This vessel had been in commission since March 18, but was engaged in trial trips and exercises in the Baltic and was only available for active service in emergency in the event of an attack on the coast.

Battle Squadron II, consisting of older vessels of the *Deutschland* class, lay in the Elbe. These ships were equal to the British Third Battle Squadron. The scouting forces, which had recently been augmented by the battle cruiser *Lutzow*, were also concentrated in the Elbe, and consisted of five battle cruisers of Scouting Division I, ["scouting division" is used throughout this translation for the German term "scouting group," because the former term is used in the figures at the end of the translation and has been used for the last 10 years by the Naval War College], four 6-inch gunned light cruisers of Scouting Division II, four light cruisers of Scouting Division IV, to which later was added S. M. S. *Hamburg*, the flagship of the leader of submarines. Scouting Division III, consisting of older cruisers, had been assigned to the commander in chief of the Baltic forces since April 20, 1915, and on January 15, 1916, had been disbanded. On the other hand, the light cruisers *Graudenz* and *Stralsund* were in the dockyards at Wilhelmshaven and Kiel for installation of their 15-cm. (6-inch) armament. The destroyer ["destroyer" is used instead of the German name "torpedo boat" throughout this translation] flotillas, led by the *Rostock* and *Regensburg*, had a normal strength of 12 boats to a flotilla; 1 boat was always in material reserve, giving a maximum operating strength of 11 boats. Flotillas II, V, and IX were at this strength; but 4 boats of Flotilla III, 7 of Flotilla I, and 2 of Flotilla VI were undergoing repairs in the dockyard at Kiel. In all there were therefore 62 destroyers, 11 light cruisers, 6 older battleships, 5 battle cruisers, and 16 first-line battleships ready for service.

Thus the comparative strength of the two fleets of Jutland was as shown by the following table, viz:

	First-line battle-ships	Battle cruisers	Older battle-ships	Armored cruisers	Light cruisers	Flotilla leaders	Destroy- ers
German.....	16	5	6	0	11	0	¹ 61
British.....	28	9	0	8	26	5	74

¹ The numbers of German destroyers in fig. 3 are in error. There were actually 31 destroyers with Scheer and 30 with Hipper. *V-186* had broken down during the morning of the 31st and returned to port, thus reducing the total number of destroyers to 61.

The British superiority was, therefore:

In battleships, 37:21.

In light forces, 105:72.

Above list does not include the Harwich Force.

CHAPTER 8

SKAGERRAK

PLAN OF OPERATIONS AND STRATEGIC DEPLOYMENT

In consideration of the operations which had been planned by the Germans for the middle of the month, there had been a certain easing up in the service requirements after May 8 with the idea of saving both personnel and matériel, since at that time the general situation did not appear critical. Thus the sailing orders for all ships not actually on patrol service were extended to six hours. Further, the period of readiness for sea for the severely overtaxed destroyer flotillas was also considerably extended in order that sufficient opportunity might be given to recondition and overhaul machinery in preparation for the coming offensive. On May 9 the commander Battle Squadron III, Rear Admiral Behncke, returned with the *König*, *Kronprinz*, *Kaiser*, and *Kaiserin* from exercises in the Baltic, and all was in readiness for the operations planned for May 17 when several ships of Squadron III developed condenser trouble, necessitating the postponement of operations until May 23. In order that this interval of enforced inactivity might not be wasted and since there were no reports at hand indicating an immediate offensive on the part of the enemy, Squadron II and the first leader of destroyers with his flagship *Rostock*, Destroyer Flotillas III and IX, as well as the Thirteenth Half Flotilla were sent to the Baltic for training. On the 15th the *Lutnow* also followed. All forces were ordered to rendezvous in the North Sea on the morning of May 23 ready for action. It was believed that the English forces were divided between the harbors on the north coast of Scotland, the channel, and the Humber. The basic plan of operations was then as follows: At dawn on a certain date the scouting forces, accompanied by three of the fastest destroyer flotillas, were to appear off Sunderland [just to southward of Blyth in fig. 7] and bombard the most important military works, thus inciting the enemy forces to advance. In order to attack these forces Battle Squadrons I and III, with Scouting Division IV, and the rest of the destroyer flotillas were to take station between the southwest shoal of Dogger Bank and Flamborough Head [slightly north of Hull], about 50 miles to the eastward of the latter. In

the meantime the submarines of the fleet were to take station near Scapa Flow, the Moray Firth [the bay northeast of Cromarty], the Firth of Forth [the bay east of Rosyth], the Humber [the river on which Grimsby is located] and to the northward of Terschelling [the island just south of U-67 in fig. 8], while those of the naval corps in Flanders should take station for attack near the mouth of the Thames, other boats of this force having previously laid mine fields in the vicinity of the important harbors. In addition all airships were to be employed in this offensive; those which were not utilized for the immediate protection of the scouting forces were to conduct a reconnaissance over the Humber, toward the Firth of Forth, the Hoofden, and Skagerrak. At first it was decided to leave Battle Squadron II behind for the protection of the German Bight during the absence of the fleet, but on the urgent representation of the commander of this force, Rear Admiral Mauve, it was agreed that in spite of the inferior armament and resistance of these older vessels they should be allowed to participate in the offensive.

When it became apparent on May 13 that the operations scheduled for May 17 would have to be postponed until the 23d, the leader of submarines, Commander Hermann Bauer, proposed that the submarines which were ready for service should be dispatched to the North Sea on a scouting expedition in order to gain the necessary information for the pending fleet offensive. This force was to cover that particular area which previous experience and observation had shown was occupied by the British fleet when supporting a raid of the light forces on the German Bight or when expecting a German offensive. Admiral Scheer agreed to this proposal. Therefore, on the 17th and 18th, 10 boats were ordered out to scout for enemy warships until May 22 in the area between the latitude of Jaderen [on the Norwegian coast just west of the name "Norway" in fig. 8] and Hanstholm [on the Danish coast just north of the letter "u" of Jutland in fig. 8] from the Norwegian coast to a point about 100 miles eastward of the Firth of Forth. The following boats were sent out: U-52, U-24, U-70, U-32, U-66, U-47, U-43, U-44, U-63, and U-31. These boats were distributed in the above-mentioned order in sectors extending from west to east, each sector being about 15 to 20 miles wide and 100 to 120 miles long. In these sectors they were to cruise on northerly courses and in case of being sighted were to conduct themselves in such a manner as to give the appearance of being engaged in commerce raids or else bound for the west coast of the British Islands. From May 23 on they were to take station near the enemy bases [fig. 8 shows their positions for 2.15 p. m., May 31. In addition to the submarines fig. 8 also shows positions

occupied by airships] *U-43* and *U-44* near Pentland Firth, while the remaining boats occupied sectors near the Firth of Forth, remaining there 10 days, each boat cruising in sectors which, overlapping, had a common center in the exits from the bases in question. Within these sectors the submarines were given freedom to close in to the coast or to stand out to sea according to the weather conditions, the counteroffensive measures encountered, and the experience of the crews, some of which were new to this service. It was of greatest importance, however, that they should not be prematurely discovered. Radio was not to be employed except in great emergency, in particular upon sighting enemy warships, when it was to be used only after every existing opportunity for attack had been utilized. In order to inform the boats of the fact that the fleet operations were about to commence it was decided to broadcast the time of putting to sea with the phrase, "Prepare for enemy forces standing out." In this manner it was hoped that in case any boats had left station on account of machinery overhaul, to rest the crew, or for any other reason, they might be brought back in time for attack.

In addition, another boat, the *UB-27*, was sent out on the 20th to penetrate the Firth of Forth and, inside of May Island, to await opportunity to attack the warships leaving or entering. The performance of this mission was estimated at 14 days. Another special problem fell to the lot of the *U-46*. On the night of May 22-23 this boat was to take station off Sunderland—the probable objective of the German offensive—to scout and observe the patrol, the commerce, navigational aids, and the mine fields, and to report the results in special code words. Under no circumstances was the locality to be mentioned. After this the boat was to occupy station, waiting between the Firth of Forth and the Moray Firth, near Peterhead. Since, however, the *U-46* was not ready for service at the time, this problem fell to the lot of the *U-47*, which latter boat should have been with the other flotillas operating in the North Sea. Aside from this the larger mine-laying submarines, *U-72*, *U-74*, and *U-75*, were to proceed to the Firth of Forth, Moray Firth, and to the westward of the Orkney Islands and lay mine barriers of 22 mines each. Should the pending operations be carried out immediately after the mine fields were planted as planned, it was probable that the enemy would not have sufficient opportunity to discover and sweep these fields before standing out. Even though the mines were prematurely discovered it was hoped that their presence would delay the fleet in putting to sea. Having stood out on this mission on May 13 the *U-74* was followed on May 23 and 24 by the other two boats.

Furthermore, in order to keep the Humber under observation, in which, in accordance with reports of a steamer on May 14, there were a larger number of vessels assembled, including battleships, the *UB-21* and *UB-22* stood out on May 22. These boats were to take station from May 23 to the northward of the line extending from the peace time position of Spurn Point Lightship to Outer Dowsing Buoy, there to remain for 10 days. Finally another line of submarines was to be established to the northwestward of Terschelling in order to protect the fleet from flank attacks in this direction during the pending operations. For this mission the Chief of the Fourth Submarine Half Flotilla, Lieutenant Commander Prause, was selected and accordingly put to sea with the *U-67* and *U-46* on May 22. The *U-22*, which should have been attached to this flotilla, was left behind, not being in readiness.

The enemy, being occupied with similar preparations, had also put out a line of submarines; thus the commander in chief, in addition to the usual submarine blockade of the German Bight on May 15, had sent the *D-7* and *E-30* to take station in the Kattegat to observe the exit from the sound near the Anholt Island. Another submarine put to sea on May 18 to cruise in the vicinity of Goteberg, while the same day the British commander in chief was informed, through their excellent system of communications and secret service, "from a reliable report" that an exceptionally large number of German submarines were operating in the North Sea. (Jellicoe: *The Grand Fleet*, p. 294.)

Since, however, everything was so quiet on the German side after the operation against Lowestoft, the British were not prepared to assume from this fact alone that a large-scale offensive was pending. It was known that after the aircraft attack on Tondern near the beginning of May Squadron III had been sent to the Baltic for tactical exercises, and the submarines on patrol service near the German Bight reported that aside from the regular movements of the mine-sweeping division and the boats on patrol there was no undue activity among the German men-of-war. Thus, in spite of the fact, which became known on May 22, that at least eight and possibly more submarines were operating in the North Sea, the enemy were inclined to believe that this had to do with a resumption of commerce raids rather than a fleet action. Accordingly, the vessels of the Tenth Cruiser Squadron were withdrawn on May 19 from their usual blockade stations directly across the North Sea to positions as far to the westward as possible. Furthermore, the patrols in the vicinity of the fleet bases were strengthened and special measures taken to protect vessels standing in or out of the bases from submarine attacks and to safeguard them from mine fields which might be laid by outlying German submarines. In particu-

lar the mine sweepers attached to the fleet were engaged in sweeping, beginning May 21 and each day subsequently, in the vicinity of the "Long Forties," through which the fleet was accustomed to pass en route to the southward. From May 23 on special deep mines were laid in the Moray Firth to prevent the penetration of submarines into the bases.

The German submarine offensive therefore did not find an unprepared enemy. As the 10 boats designated for scouting in the North Sea stood out, 3 to the westward and the others to the east of Terschelling, the *U-52*, Lieut. Commander Hans Walther, sighted a destroyer 90 miles north off Terschelling and the submarines *U-66*, Lieut. Commander von Bothmer, and the *U-63*, Lieut. Commander Otto Schultze, sighted a number of patrol vessels near the Dogger Bank and the Great Fisher Banks. In the area assigned for their activities no important war craft were sighted, although radio messages from Brugge reported an enemy squadron near Bergen, other enemy warships near the Humber, and a number north of the German Bight. As a consequence some of the German submarines habitually cruised submerged at night. Further, the counter measures of enemy patrols were restricted chiefly to the left wing of the submarine line and were encountered chiefly by the *U-52* off the Firth of Forth.

Since the visibility conditions were generally very good, the masts and smokestacks of fishing vessels were continually in evidence, with the result that the submarines were forced to submerge or deviate from their course, a fact which greatly increased the difficulty of a general survey of the area. As early as the 20th, the *U-52* was probably sighted by a steamer, which immediately after the event put back to the Firth at full speed. On the next day at about 9 a. m. the *U-52*, while 110 miles to the eastward of Aberdeen, sighted a submarine followed by a small cruiser and about 12 destroyers or subchasers. These were reported by radio through the *Arcona* which was the relaying vessel for submarine communications. In the scouting line this message was picked up only by the *U-43* (Jürist) and the *U-66* (Von Bothmer), although it was repeated by the station at Brugge. On May 22 the *U-52* had another encounter with 12 subchasers and 1 destroyer. Both times it was impossible to avoid these craft, and the submarine was forced to seek safety by submerging to 25 fathoms. It is probable that the submarine had been located by the radio direction finders upon sending out the message on the preceding day, and this accounted for the increased antisubmarine activities of the enemy.

As subsequent events proved, the advance of the Grand Fleet which was brought about by a sortie of the German fleet, actually covered the greater part of the area in which the submarines had

been cruising up to the forenoon of May 22. Further, the rendezvous of their forces lay in this area. The field of operations was therefore in itself very happily chosen. Unfortunately, the German fleet offensive had not yet begun when the submarines, in compliance with their orders, left this field to take station off the Pentland Firth and the Firth of Forth, which disposition of forces, in accordance with the original plan, should have given the submarines further opportunity to attack the vessels returning to port after the battle.

As the situation actually developed these boats were forced to maintain position immediately off the enemy bases for a long period, meanwhile being subjected to the full force of the enemy antisubmarine activities.

In the meantime the ships of the High Seas Fleet which had been sent to the Baltic for training had returned to the North Sea, according to plan, on May 22, but the pending offensive which was to have been initiated forthwith had to be postponed again. The reason this time was inadequate repairs to the battle cruiser *Seydlitz*. This vessel, which had struck a mine in the operations of April 24, had been reported ready for service on May 22 by the dockyard at Wilhelmshaven; but a flooding test which was made as a precautionary measure on the night of May 23-24 showed that a broadside torpedo room which had been damaged by the mine was not watertight, while the leaks in the transverse and longitudinal bulkheads were so numerous that further repairs were essential. As the commander in chief did not wish to relinquish this ship and repairs could not be completed before May 28 [in view of the severe damage sustained by the *Seydlitz* at Jutland, it was fortunate that the repairs were properly made], it was necessary to again postpone the undertaking till after May 29, for better or worse. In the meantime the orders which had been issued extending the sailing orders for ships at the docks and in the harbors remained in effect, except that further patrol and torpedo boat scouting operations were to be inaugurated in the German Bight to keep the exits of the fleet clear of mines and submarines. Further, the commander of the naval airship detachment received instructions to carry out air raids over the northern and southern portions of the English east coast but not to alarm the central portion, which was to be the objective of the fleet objections. Since the weather conditions remained unfavorable up to the end of the month, the scouting operations at the extremity of the German Bight were restricted to the frequently interrupted flights of the aircraft from List, Helgoland, and Borkum, and the patrol cruises of the mine-sweeping and barrier-breaking divisions. On this mission the air squadron from Helgoland, 562 and 483 under

Lieutenant Rogge, sighted an enemy submarine on May 24 about 35 miles south of Horn Reef. This submarine lay on the surface in the vicinity of the Danish steamer *June* and attempted to ram the seaplane 483 when the latter landed on the surface for the purpose of searching the steamer. It appeared not improbable that there was cooperation between the steamer and the submarine. Therefore Destroyer Flotilla VI, Commander Max Schultz, was dispatched to the northward to patrol the area between Horn Reef and List during the following night (24-25) and, if possible, to bring in this steamer. This search proved fruitless, as did its repetition during the next night by Flotilla IX, under Commander Goehle.

In the meantime the *U-43* and *U-44* had taken station in their sectors off the Pentland Firth, while *U-66*, *U-63*, *U-51*, *U-32*, *U-70*, *U-24*, and *U-52* had closed in on the base at the Firth of Forth according to plan. In this movement the *U-52*, while proceeding toward the Firth of Forth on May 22, ran into a net while cruising under the water at about 6 a. m. when 90 miles ENE. on May Island. [Off Rosyth. See fig. 8.] By submerging to a depth of 50 meters the boat was enabled to get clear, but found on investigation the next night that both legs of the mine-cutting device had been bent and that the head of the middle periscope had been broken off. Of the other boats which were proceeding toward the coast, the *U-32*, Lieut. Commander Count Spiegel von und zu Peckelsheim sighted a sloop of the *Arabia* class and *U-63*, Lieut. Commander Otto Schultze, when 180 miles to the eastward of Cromarty Forth sighted an old cruiser with one destroyer, two smaller craft, and a submarine which turned off before an attack could be made. Judging from intercepted radio messages the presence of this submarine must have been reported, since on approaching the coast it had to break through a strong line of patrols and on May 23 laid a course near Tod Head along the coast in order to reach the assigned sector. On the evening of the same day the *U-51* (Rumpel) sighted a large auxiliary cruiser of about 10,000 tons, with one destroyer, about 50 miles northeast of May Island. At 7.30 p. m. these vessels passed the submarine at a distance of about 6,000-7,000 meters at full speed on a southerly course. At 8.40 p. m. these were also sighted by the *U-70*, Lieut. Commander Wünsche. Since this auxiliary cruiser might be employed as a mine layer on account of the peculiar shape of the stern, and was holding a course toward Amrun Bank [to southward of Sylt, fig. 8] it was reported by radio by the *U-70*. In the meantime one of the boats stationed off Pentland Firth, the *U-43*, sighted two cruisers of the *City* class near the entrance at 7 p. m., but owing to machinery derangements was unable to approach within torpedo range.

Furthermore, the weather was unfavorable for submarine operations with the exception of two days; either the sea was absolutely smooth so that the periscope betrayed the presence of the submarine, together with low-visibility conditions which changed to fog near the coast, or else there was so much sea and spray that horizontal steering at the depth for attacking was very difficult and vision through the periscope impossible. In addition to this it soon developed that the submarines in those sectors nearest the coast were being subjected to increasingly sharp antisubmarine operations from which they could not withdraw out of their restricted areas without entering the sector assigned to the neighboring submarine, thus hindering the latter. At a place about 10 to 15 miles to the eastward of May Island, where all boats had equal chances for attack, the sectors were only from 3 to 4 miles wide, a fact which considerably endangered the submarines, since it was learned that the British were using their own submarines to hunt down the Germans. From the English radio messages it was soon learned that individual boats had been sighted and that an energetic search had been organized, while at night even cruisers and destroyers were employed.

In the meantime the *U-47*, Lieutenant Metzger, had carried out its survey in the neighborhood of Sunderland during the night of May 21-22 in accordance with the plan. He determined that the city was well screened toward the sea, lights being extinguished and even smelting ovens giving no reflections which might serve as a navigational light. As far as could be judged from the commercial traffic no mine fields were to be expected near the coast. After making these observations, which were transmitted to the commander in chief on the 23d by means of special code words, the submarine stood out in a wide sweep toward the Firth of Forth to take station near Kinnaird Head.

Simultaneously with the other boats, the *UB-27* (Lieutenant Commander Dieckmann) had arrived off the Firth of Forth on its special mission. On May 23 this boat fell in with the *U-32* and then with the *U-63*, obtaining from them the reports which had been received in the meantime from Brugge in regard to the enemy forces in the North Sea as well as the latest dispatches; then, while the *U-63* diverted the patrol, *UB-27* laid a course for the Firth of Forth past Bell Rock. Soon after midnight the boat was forced to reduce speed due to machinery derangements, so that the commanding officer decided to steer for St. Andrews Bay in order to effect repairs. During the same night (23-24) while the *U-63* (Schultze) was cruising on the surface close in to the Firth of Forth, a light cruiser of the *Arethusa* class was sighted at 2.45 a. m. This cruiser approached so rapidly that although the submarine immediately

swung to a parallel course it could not utilize the opportunity for a certain shot at from 300 to 500 meters and was forced to submerge to avoid attack from gunfire. A second craft which followed the cruiser with screened lights at a distance of about 2,000 meters could not be clearly distinguished. This circumstance showed that Bell Rock was probably the point of approach for all entering and leaving vessels, and the commanding officer therefore decided to cruise further in this vicinity.

In the meantime the *UB-27*, before it could reach St. Andrews Bay, where it intended to lie on the bottom, sighted, at 7 a. m. on May 24, four armored cruisers, apparently of the *Monmouth* class, standing out of the Forth in column some distance away, while to the southward of these were numerous destroyers. Since these vessels steamed to the eastward at full speed, the attack which had been initiated had to be abandoned. The hope remained that these cruisers might be only the advance screen of a strong main body. Therefore the *UB-27* proceeded at full speed to the southward toward North Carr Lightship. At 8.30 a. m. the outlines of two cruisers or destroyers were sighted to the eastward but disappeared toward 9 o'clock without other vessels following. Presumably the ships in question were the Fourth Light Cruiser Squadron, which, according to subsequent English reports, had left Rosyth under destroyer escort on May 24 to cruise off the Norwegian coast from Lindesnes to Utshire [the coast extending northwestward from *The Nase*, fig. 8], thence to return to Scapa. On May 24 the *U-72* (Krafft), while about 120 miles to the westward of Hansholm en route to the Moray Forth, sighted three small cruisers of the *Calliope* and *Cordelia* class behind two submarines in line of bearing on an easterly course, which passed ahead of the submarine at such high speed that no torpedo shot was possible. At 8.30 a. m. on May 25, while 120 miles to the northward of Kinnaird Head, this submarine sighted two other vessels of the *Cordelia* class, this time on a westerly course, but again failed to gain position for attack.

The commanding officer of the *UB-27*, having waited in vain for the appearance of the fleet until 9.30 a. m. on May 24, concluded that the enemy had either gained the open sea by way of Bass Rock or else was still in the Firth of Forth. In the latter case it seemed essential that the attempt to penetrate the harbor be made at night. Before this was undertaken it was necessary to proceed to St. Andrews Bay to rest on the ground in order to repair machinery derangements. When this had been accomplished Lieutenant Commander Dieckmann steered for May Island, submerged, penetrated the line of destroyers at daybreak, and followed two or three steamers into the Firth of Forth. Not until after 18½ hours submerged cruising

could the boat come to the surface after this successful penetration of the Forth, but at 2.45 a. m. on May 25 it was able to rest on the ground in Largo Bay with charged batteries. At 5 a. m. the next morning, while this boat was proceeding at periscope depth in order to push in further toward Inchkeith, there suddenly occurred a grating and rumbling noise as though some trash or heavy weights were being dragged across the decks. Since, however, the boat steered well horizontally no further importance was attached to this. At 6.30 a. m., as the commanding officer took a look around through the periscope, he was surprised to see a long chain of green glass balls streaming astern. The submarine was trailing a net, in which it had probably become entangled during the night in Largo Bay. At any minute the boat might be betrayed by it. The commanding officer turned to the northward, sounded a 35-meter spot, and then attempted to clear the net under water by backing both engines. In this attempt the net became foul of both propellers and brought them to a stop. To come to the surface was out of the question. There remained nothing else to do but to submerge to 40 meters and rest on the bottom until dark. After all preparations had been made to clear the net and to blow up the submarine in the event of a surprise attack, the boat came to the surface at 10.30 p. m. (May 25), after being under the water for about 20 hours, and found light, misty weather, favorable to the undertaking.

Thanks to the determined efforts of the crew the net was cleared inside of 20 minutes and stowed in the boat. The port propeller, however, still remained foul and therefore further stay in that vicinity was out of the question. As the boat was preparing to put out from the Forth to clear the port propeller in the open sea it encountered another grave danger. Shortly after midnight, while steaming on the surface and attempting to pass between two patrol vessels, it was suddenly brought to a standstill, being caught in a net which was apparently suspended between these patrol vessels. This net immediately began to burn with small flames along its entire length, but the submarine succeeded in cutting through in 10 minutes before the patrol could approach, and thus gained its freedom. Another net was encountered shortly after this; nevertheless the boat was able to pass by the Elie net off May Island at 2.31 a. m. on May 26 and came to the surface at 7 a. m. about 10 miles to the eastward of the island.

As the position of the smoke in sight indicated, the *UB-27* found herself in the midst of a number of patrol vessels which were disposed in checkerboard fashion in all directions. At 10.40 a. m., May 26, the boat sighted a large auxiliary cruiser of about 10,000 tons coming up from the southeast and steering to the eastward.

Although the distance was over 3,000 meters the torpedo was fired, since the commanding officer did not believe he could safely make a closer approach, owing to the lack of the port propeller, and a better opportunity for attack was hardly to be expected on that trip. The torpedo missed, the attempt proving that with only one propeller it was difficult to hold the boat in position during the shot. Since it developed that the steel cable which was around the propeller could not be cleared in spite of all efforts, the *UB-27* started for port on May 27, arriving at Helgoland on May 30.

Furthermore, the *U-72* (Lieutenant Commander Krafft) was forced to abandon its undertaking on May 26. On that date, when about 100 miles to the eastward of Moray Firth, where the mine field was to be laid, a heavy seaway showed that one of the outer oil tanks was leaking, resulting in an oil track which became more pronounced after the boat submerged. Aside from this the oil engines began to develop trouble, and since the nights were becoming shorter the successful carrying out of the mission appeared doubtful. The *U-72* therefore started on the return journey on the 27th, arriving at Lister Deep on May 29.

In the meantime the other submarines stationed before the Humber, Pentland Firth, and the Firth of Forth proceeded with firm determination to carry out their thankless mission, but sighted only subchasers, patrol vessels, and destroyers. Owing to the energetic defence measures, the low visibility, and fog they were frequently forced to remain submerged during the day and were often forced far out toward the open sea. These countermeasures were particularly severe close to the coast, and especially near the channel which led from the Firth of Forth to the northward past Bell Rock and May Island. As a result the boat which was on the northern end of the line, *U-66*, under Lieutenant Commander von Bothmer, suffered most severely from these defensive measures. If it were to remain unseen—and only then could it hope to achieve its mission of attacking important men-of-war—it was forced to remain under water from 3 a. m. until 10.30 at night. Under these circumstances the possibilities for making observations in that zone were extremely limited. Hence it appeared to the commanding officer that it would be more advantageous in the future to leave the coast areas to the smaller boats and for the larger and faster submarines to operate outside the line of patrols. Being able to cruise on the surface they could intercept radio messages and thereby improve their position. In accordance with these views he resumed his activities outside the line of patrols on May 25 and toward evening fell in with the *U-47* (Metzger), which was cruising between Kinnaird Head and Peterhead. The next morning (May 26) the *U-47* was sighted by a fishing steamer in thick weather before it could submerge. On the day

following (May 27) the *U-74* (Wiesbach) was engaged in a fight with the armed fishing vessels *Ranger*, *Bodino*, *Oku*, and *Kimberly* while on the "Long Forties" and was sunk with the entire crew about 25 miles to the southeast of Peterhead. Whether this occurred before or after the completion of the mine-laying mission off the Firth of Forth will never be known.

The presence of German submarines in the vicinity of Pentland Firth was soon determined, and on May 27 the flotilla leader *Broke*, with 12 destroyers, stood out from Scapa to strengthen the patrol. The *U-43* (Jürist) and *U-44* (Wagenführ) were pursued by these vessels on that date and for several days following. There were a number of opportunities for torpedo attacks on these destroyers, but the commanding officers refrained in order not to betray their position prematurely. On May 29, after intercepting considerable radio traffic which indicated an energetic antisubmarine offensive, the *U-44* submerged to 20 meters and shortly thereafter heard the propeller noises of a destroyer passing overhead. It was 5 a. m. on May 30 before the submarine was able to come to the surface. On the same day *U-43* sighted, at 12.30 p. m., 12 vessels of the *Foxglove* class, which were at first thought to be light cruisers steaming in closed search formation. The submarine fired a long shot at six of the overlapping craft at a distance of between 2,000 and 2,500 meters, but missed. As the shot, however, was observed by the *Gentian*, one of the mine-sweeping gunboats, a half flotilla of destroyers, together with a number of aircraft, left Scapa immediately to search for the submarine. While the *U-43* withdrew from the chase as rapidly as possible, the *U-44*, which was steering a course that forenoon toward Pentland Skerries, ran into the full patrol force. It appeared in the forenoon from the increased radio traffic that the boat had been sighted from ashore and therefore was proceeding seaward through the middle of the sector when it encountered the destroyers and toward midnight was forced to submerge to a depth of 20 meters. Shortly thereafter a destroyer passed over the submarine at high speed.

While in this manner the attention of the enemy was concentrated on the area to the eastward of the Orkney Islands, the *U-75*, Lieut. Commander Curt Beitzen, had proceeded on a wide arc on the 27th past all patrols and supervision from Utshire to the northward of the Shetland Islands and approached the islands from the westward during the night of May 28-29. [See note fig. 8.] Owing to constant overcast sky and frequent fog the boat had had no fix since leaving Norway, so that at midnight a large darkened warship was sighted in the last minute, too late for a torpedo shot. Later the weather cleared, and at about 1.10 a. m. the lighthouse at Noup Head was made out. It had been determined by previous expe-

rience that to the southward of this point, between Marwick Head and the Brough of Birsay, there was a passage for men-of-war about 2 miles off the coast, which the *U-75* was to block. This was done. Entirely undisturbed by enemy patrols the boat laid several separate lines from 6 to 8.35 a. m. at a depth of 7 meters below the low-water level, a total of 22 mines, and started on the return trip.

Meanwhile, on May 28, near the Firth of Forth, the *U-66* had exchanged experience and news with the *U-51* and the *U-63*. Apparently the pending fleet offensive was not yet under way, while it developed from English radio messages which the *U-63* had intercepted, that a German submarine had been sighted near Bell Rock and the whole patrol force had been alarmed. On May 27 the English submarine *E-30* was sent to join the chase, so that on several occasions a fight between two German submarines under water was narrowly averted. On the 28th the *U-63* was chased for six hours by enemy patrol forces. As a result the *U-66* proceeded northward to the limit of the assigned area. Since at this point strong antisubmarine measures were also encountered from fishing steamers and systematic night patrols, possibility of success seemed small, and the commanding officer on his own responsibility decided to abandon his assigned area on May 30 after reporting by radio. In order not to disturb the *U-63* and the *U-47* he took station on the line Scapa Flow to Horn Reef about 60 miles to the eastward of Peterhead. [This position is shown in fig. 8] This decision was later justified when the boat was enabled to make an important report from its self-selected operating area. Meanwhile the *U-65* intercepted a radio indicating that in all probability H. M. S. *Trident* would cross the sector of the submarine during the following night, and in fact a ship of this description did appear at 10.30 p. m. A torpedo fired at 1,000 meters missed.

The exertions of the submarines stationed near the Humber had also been in vain. For six days the sea had been like a mirror where sea, sky, and horizon were blended in the periscope. The nights were so light and bright that only under the greatest difficulties were the boats enabled to charge batteries inside the lines of the patrol without being discovered and were frequently forced to go to the bottom after charging. On the evening of the 24th the *UB-22* (Putzier) had, in fact, sighted six large auxiliary cruisers painted blue, from 3,000 to 4,000 tons, while the *UB-21* (Hashagen) discovered a mine-sweeping gunboat of the *Foxglove* class; aside from this no further men-of-war had been sighted except destroyers. In the event that warships were standing in or out of the Humber the commanding officer of the *UB-21* assumed that they must be passing closer in to the coast. Therefore on May 28 he left his previous

station in order to cruise between Spurn Point and Flamborough Head, in spite of the fact that the patrol had evidently been strengthened since the 27th. In the observation stations to the northwestward of Terschelling, which had been occupied since May 23 by the *U-67* (Lieutenant Commander Nieland) and the *U-46* [*U-46* was just to southward of *U-67*] (Lieutenant Commander Hillebrand), nothing of importance had developed to date. The *U-67* had sighted at daybreak of the 23d about 20 destroyers 40 miles NNW. of Terschelling which were steaming on a westerly course, but contrary to expectation they were not followed by larger units. On the other hand, it soon became apparent that the Terschelling Bank was the field of activity of a number of enemy submarines, whereby the possibility of remaining on the surface was very much reduced, as far as the German submarines were concerned, and their usefulness considerably impaired. At night the presence of a large number of floating mines further made a cruise on the surface very hazardous. In spite of all precautions the *U-46* was surprised by an enemy submarine on May 24 and attacked by gunfire and later, when about to warn the *U-67*, came into further grave danger from a torpedo attack. On the 27th it was again surprised in foggy weather by an enemy destroyer, but was enabled to submerge and escape before the enemy could open fire. On May 30 the *U-46* was forced to return to Emden for the replacement of the single periscope with which the boat was equipped, as this had become unserviceable from leakage of water.

The prescribed period of waiting had thus come to an end for the boats stationed off Scapa, the Firth of Forth, the Humber, and Terschelling, and with the exception of the *U-46* and the *UB-27* none of the boats had left their stations. This was the situation when on May 30 the long-awaited message from the cruiser *Arcona* and from Brugge, "Prepare for enemy forces standing out on May 31 and June 1," announced the time set for the beginning of the German fleet operations.

As early as May 28 decisions of far-reaching importance had been made on the fleet flagship. In accordance with the existing orders the submarines were to leave their observation posts on the evening of June 1. If the cooperation of these boats was to be effective an early departure of the fleet was demanded. On the other hand, in the event of a close approach to the bases of the enemy the cooperation of the airships was necessary, since such an advance would lead the fleet into an area where it could not afford to accept battle against its will. Owing to the unfavorable weather conditions there seemed to be no prospect of employing the airships. In the event that these conditions did not change before May 30 there remained

no alternative but to abandon the operation against Sunderland for the time being. In that case the plan was to advance into the Skagerrak, where the coast near Jutland would furnish a certain protection against surprise from this quarter [on the other hand, the Jutland coast presented a barrier against which the High Seas Fleet could be driven and trapped by superior forces. See fig. 9], and the distance from the enemy bases would considerably reduce the chances of the fleet becoming involved in battle unwillingly. Consequently air reconnaissance would be less essential in this area. Corresponding operation orders were issued to the commanders of the various forces on the same day (May 28).

Final decision was reserved by the commander in chief, although the advance toward the northwest seemed to hold the greatest promise. At midnight all vessels lying in the harbors and at the docks were ordered to get up steam and clear for action. Toward noon on May 29 the *Seydlitz* reported ready for service. On the morning of the 30th there were easterly and northerly breezes in the German Bight, so that for the time being there could be no air reconnaissance, and the commander of the airship detachment, Commander Strasser, reported that none could be counted on for the next few days. Consequently the operations against Sunderland had to be definitely abandoned and instead an advance to the northward substituted. While the ships of the High Seas Fleet were quietly assembled in the outer roads, where they anchored preparatory to standing out, the fleet as well as the naval corps, received the broadcasted code words "31 May Gg 2490" (the number of the operation order), indicating the date set for the operations to begin. Thereupon, near midnight May 30-31, the chief of the Flanders submarine flotilla stood out from Zeebrugge with all available submarines at that station in order to protect the fleet against any attack of enemy forces from the direction of the Thames.

The purpose of this new undertaking was the same as that in the preceding plan against Sunderland, namely, to draw the enemy out from their bases. Only in this case the purpose was not to be accomplished by a bombardment of the coast, but by the appearance of the German cruisers in the vicinity of the Skagerrak. Vice Admiral Hipper, commander scouting forces, therefore received orders to leave the Jade at daybreak on the morning of May 31 with Scouting Divisions I and II, the second leader of destroyers on the *Regensburg*, and Destroyer Flotillas II, VI, and IX. He was to proceed to the northward outside of visibility of the Danish coast and to show himself off the Norwegian coast before dark in order that the English might obtain information as to the undertaking. Later during the afternoon and following night he was to conduct commerce raids

near and in the Skagerrak. In the event of meeting enemy war-ships, which had been frequently reported in this zone, he was to engage and defeat them; but in case of encountering superior forces and lacking air reconnaissance he was to draw them toward his own fleet. At the same time Admiral Scheer proposed to take position at 5 a. m., June 1, 45 miles to the southward of Lindesnes to support the cruisers with Battle Squadrons I and III, Scouting Division IV, the cruiser *Hamburg*, the first leader of destroyers on the *Rostock*, and the remainder of the destroyer flotillas. The further disposition of forces would be determined as the situation developed.

At the last minute, however, Admiral Scheer decided to alter this original plan, which was also based on airship reconnaissance, in two essential points. First he ordered that Battle Squadron II, which was to have been held in reserve for coast defense in the absence of the fleet, with the time for joining forces with the fleet held in abeyance, should take position with the fleet from the start. Of still greater importance was the decision to have the fleet stand out immediately after the cruisers, contrary to the original plan. The basis for this decision lay in the fact that the absence of air reconnaissance made it imperative for the forces to maintain concentration, in order that the tactical cooperation of all units might be assured from the start. Toward 1 a. m. (May 31) Helgoland reported wind SW., force 3-5; Borkum, WSW.; List, West, increasing. At 2 a. m. Vice Admiral Hipper left the Jade with his forces. Toward 3.30 a. m. the Scouting Division IV, Squadron III, the fleet flagship, and Squadron I followed, while at the same time Squadron II stood out from the Elbe.

It was rather a peculiar circumstance, but owing to the previously described increased tension of the strategic situation, not accidental, but of necessity, that Admiral Jellicoe was also engaged in making preparations for an undertaking similar to that of the Germans for the latter part of May. Under pressure of public opinion since the bombardment of Lowestoft and the urgent representations from Russian sources, as well as the failure of the previous weak attempts to lure the German fleet as far as possible from their bases in order to bring them to battle against superior forces, the commander in chief of the British fleet had prepared a new plan which in the words of the English semiofficial organ went far beyond anything that had as yet been attempted. (Corbett: *Naval Operations*, Vol. III, p. 320.) According to this bold plan two squadrons of light cruisers with one battle squadron as support were to appear off Skagen early on the morning of June 2 and proceed through the Kattegat as far as the northern passage of the Great Belt and the sound. In this manner it was hoped to entice the enemy, which had made counter

attacks after every British offensive, to advance to the northward with strong forces. Thereupon he was to be attacked by the other battle squadrons and the battle cruiser fleet which had in the meanwhile taken position for this purpose between Horn Reef and the Great and Little Fisher Banks. In order to prevent the premature discovery of the English fleet in this position, the aircraft tender *Engadine*, accompanied by a light cruiser squadron and destroyers, was to cruise in the vicinity of Horn Reef and by means of aircraft prevent any German airships from approaching the British fleet. In event, however, that the German fleet did not advance far enough to the northward to be brought to battle, it was hoped that considerable damage might be inflicted on it by a new mine field, placed by the mine layer *Abdiel* (in addition to the one laid on the night of May 3-4) to the southward of Vyl Lightship. Furthermore, three of the Harwich submarines were to take position to the northward of this mine field from June 1 to '3 to await favorable opportunities for attack. Two additional submarines of the flotillas stationed at Blyth were to cruise to the eastward of Dogger Bank for the same purpose. This plan, however, was crossed by the German undertaking before it could be developed; thus it came about that Admiral Scheer prescribed the manner of action for the enemy. If the British plan may be designated bold, this must be even more true of the German plan in view of the relative strength of the fleets at the time, especially in the event that the British happened to be at sea at that time. However, it was more in accordance with the German plan that the enemy should be drawn out by the appearance of the cruisers off Skagerrak, and for this reason every effort was made to keep the German preparations as quiet as possible. But in spite of every precaution and the restriction of radio communications, the English were informed on the morning of May 30 that the German High Seas Fleet was assembling in the outer Roads. This fact, together with the puzzling activities of the German submarines in the North Sea, pointed to a new German offensive of extraordinary importance. Accordingly, the British Admiralty sent a warning to Admiral Jellicoe at noon on May 30 that the German fleet would proceed to sea in all probability early the next morning and that already 16 submarines had left port, of which the greater part were cruising in the North Sea. It was believed that for some time past a large-scale operation had been planned on the German side which would shortly be initiated, but aside from this assumption there was no possibility of obtaining an insight into the intentions of the German commander in chief. Final orders could not, therefore, be issued to the fleet, but as a precautionary measure the Harwich destroyers and mine-sweeping gunboats were recalled from

the east coast and all submarines were ordered to hold themselves in readiness. Shortly after 6 p. m. May 30 it became known that all units of the High Seas Fleet had received an important operations signal, viz, "31 May Gg 2490," which could not be fully interpreted but left no doubt that a large-scale operation was immediately pending. There was no time to be lost; therefore, at 6.40 p. m. a telegram was sent by the Admiralty to Admirals Jellicoe and Beatty to assemble their forces in the usual manner at the rendezvous about 100 miles eastward of Aberdeen, and there await further developments. Aside from this they were informed that for the present the Harwich forces as well as those at Nore would be held in reserve until the situation was further developed; that in accordance with the proposed plan to send the fleet in the direction of Skagerrak, three submarines should proceed at once to take station near the outer area of the German Bight to the westward of Vyl Lightship, and that two others should occupy a position to the eastward of the Dogger Bank.

In the opinion of the Admiralty it was not improbable that the expected advance of the German fleet to the northwest, as indicated by the disposition of the submarines, might be only a feint to cover another operation in southern waters. Admiral Bradford [Commanding Third Battle Squadron, see fig. 7] had therefore received orders, after the auxiliary cruisers and patrols had been recalled from the east coast station, to assemble his cruisers at a previously designated position off Swin and the following morning to put to sea from Sheerness with the Third Battle Squadron. At the same time Commodore Tyrwhitt was ordered to hold all available light cruisers and destroyers at Harwich in readiness for immediate action. In this manner all precautions were taken to assure a prompt counter offensive against any undertaking in southern waters.

In the north everything was ready as well, and as early as 11.30 p. m. (May 30-31), or three hours before the German fleet stood out, all divisions of the Grand Fleet were putting to sea in three columns [fig. 9 shows this advance] in order to reach the point of concentration designated. From Scapa Admiral Jellicoe stood out with the First and Fourth Battle Squadrons, Third Battle Cruiser Squadron, Second Cruiser, and Fourth Light Cruiser Squadrons, as well as the Fourth and Twelfth Flotillas and one division of the Eleventh Flotilla; from Cromarty Admiral Jerram, with the Second Battle Squadron, the First Cruiser Squadron, and the nine destroyers of the Eleventh Flotilla with the flotilla leader; and from Rosyth Admiral Beatty, with the First and Second Battle Cruiser Squadrons, the Fifth Battle Squadron, the First, Second, and Third Light Cruiser Squadrons, and 27 destroyers of the Thirteenth, Ninth, and Tenth Flotillas.

In order to facilitate the difficult exit of so large a number of ships at night a comprehensive plan was put into effect somewhat similar to the German scheme. The principal value of this arrangement lay in the fact that only two signals were necessary to put the project in motion. At a preparatory signal consisting of a single word all ships raised steam for 18 knots and within two hours were ready for sea, while the admiral commandant at the Orkney and Shetland Islands notified the patrol forces of the pending departure of the fleet. The second signal indicated the time for weighing anchor of the first squadron, as well as the course to be laid after passing the antisubmarine nets. Everything else, such as the order in which the squadrons should leave the harbor, the choice of exist course to the northward or southward of Pentland Skerries, the squadron and division intervals, and the disposition of destroyer flotillas for submarine screening, was definitely laid down and required no further signal. Finally, to guard against the danger of submarines, the plan provided that from the time of passing Pentland Skerries until daybreak the squadrons were to proceed on three different routes which lay 7 miles apart. Similar arrangements were also made for the forces leaving the Moray Forth and the Firth of Forth. (Jellicoe: "The Grand Fleet," p. 299.)

CHAPTER 9

SKAGERRAK—FROM DEPARTURE OF THE FLEET TO THE CRUISER ENGAGEMENT

The lively activity of the German submarines in the immediate vicinity of the bases of the Grand Fleet warned the latter to take additional precautionary measures for its departure. For instance, a few hours before Admiral Beatty with his forces left the Forth, a submarine near this base had attacked the *Trident*, the flotilla leader of the Blyth destroyers, another had fired torpedoes at the gunboat *Gentian* near Pentland Skerries during the afternoon, while a third had been sighted near Aberdeen on the same day.

Of the large number of submarines attached to the High Seas Fleet which were at sea, only the *U-67*, *UB-22*, *U-70*, and *U-32* had received the code words announcing the beginning of the German offensive; consequently these were the only boats which on the night of May 31 were ready for the offensive after the long period of futile waiting.

Upon receipt of the radio the *U-32*, which had been assigned the middle sector extending to the eastward of the Firth of Forth, laid a course to arrive at daybreak on May 31 at a point about 80 miles to the eastward of May Island. The commanding officer based his decision on the fact that the English must be aware of the presence of the German submarines in that area and, in case they stood out for a counteroffensive, would, if possible, put to sea during the night in order to pass the danger zone during darkness. If this assumption were correct, and the fleet did stand out in the evening hours, it must enter the area which was patrolled by the *U-32* at daybreak. The correctness of this decision was seen to be proven. At 4.40 a. m. (May 31) two warships were sighted from the Firth of Forth which were made out to be the light cruisers *Attentive* and *Adventure* (in reality *Galatea* and *Phaeton*). Separated by a distance of 600 meters from each other, these vessels approached at 18 to 19 knots so rapidly that with the prevalent conditions of low visibility the *U-32* could only approach to within 900 meters. While making the attempt to attack the leading cruiser with two bow shots and the second with two stern shots, the commanding officer was prevented from this by the fact that after the first shot the periscope jammed in the extended position and betrayed the presence of the submarine. At the second shot the leading cruiser turned away sharply, while the second headed

directly for the submarine. The boat was barely enabled to submerge to 15 meters when the loud noise of the cruiser was heard overhead. As the *U-32* came to 10 meters at 5.10 a. m., two battle cruisers, surrounded by numerous destroyers, were seen on a southeasterly course through the periscope at the limit of visibility, but it was impossible to make an approach for attack. The boat came to the surface immediately, erected the radio masts, and sent off the important radio message reporting the departure of the enemy forces. [Note E, fig 9.] Although at the time there was a submarine in the next square, the *U-70*, which received this message, it did not sight any enemy forces.

Meanwhile the *U-66* had received the code word from Brugge announcing the beginning of the German offensive at 2 a. m. while occupying its new station about 60 miles to the eastward of Peterhead. Thereupon the first thought of the commanding officer was to return immediately to the inner part of the sector which had previously been assigned to him near the Firth of Forth. Since he was under the impression that the German offensive would be directed toward Sunderland it seemed highly improbable that the English forces would stand out from the Firth of Forth in a northeasterly direction and thus pass through the zone which had been assigned to him. Further, previous experience had shown that in the event of the fleet standing out, the antisubmarine offensive near the coast would be well organized and that the submarine would be forced to cruise submerged with little chance of seeing anything, owing to the misty weather. For this reason the commanding officer deemed it best to remain in his present position in the hope that the forces from Scapa Flow might pass through his zone en route to Horn Reef. The correctness of this decision was substantiated. At 6 a. m., while about 60 miles to the eastward of Kinnaird Head, there suddenly appeared through a fog bank an armored cruiser, distant 5,000 meters, which was steaming at 20 knots toward the submarine. The latter submerged immediately and prepared the torpedo tubes for a shot. At this moment the cruiser (*Duke of Edinburgh* class) chanced to turn away and soon disappeared in the mist. Shortly after, from the same direction, appeared a small cruiser with four stacks (*Birmingham* class), then a large number of destroyers steaming toward the submarine on line of bearing, while behind these at an interval of 1,000 meters appeared eight large warships in double column. Abandoning the proposed attack on the light cruiser, the *U-66* steamed toward the battleships, but was forced under water at a distance of 300 meters by a destroyer while the squadron passed overhead. The hope of being able to assume position for attack on the rear ship by steaming at right angles to the course of the enemy and passing the antisubmarine

screen could not be realized. When the periscope broke water the battleships had already passed and soon vanished in the distance. The fact that this attempt to take advantage of a brilliant opportunity for attack was unsuccessful must be attributed more to the misty weather than to the effectiveness of the antisubmarine screen. The experiences of the last few days had shown that in order to achieve success the submarines must operate on the surface, and therefore outside the zone of the enemy patrols. Only when they were on the surface could information be exchanged by radio regarding the sighting, position, and course of the enemy sufficient to insure cooperation in the maneuvers for attack.

At 7.35 the *U-66* came to the surface and dispatched a radio reporting the above incident. [Note G, fig. 9.] The objective of the enemy forces was uncertain and to follow them would be useless. Only upon their return would there be a possible opportunity for a renewed attack. It seemed to the commanding officer that the squadron which was sighted, apparently standing out of the Firth of Forth, would hardly return on the reverse course on account of the known danger from submarines, but that it would in all probability stand into Scapa Flow. He was therefore about to approach this latter base on the line from Utsire when the weather suddenly cleared. Since now the possibility of sighting enemy forces seemed considerably greater, he steamed at high speed about 15 miles to the southeast in order to reach a position from 50 to 60 miles eastward of Peterhead by evening.

Of the other boats near the Firth of Forth, the *U-63* had first come to the surface at 5.45 a. m. after passing the rainy and foggy night under water, and at 6.25 and 7.16 a. m. had received the messages from the *U-32* and *U-66* reporting contact with enemy forces. From these it was evident that the enemy had put to sea during the night. It was inferred from intercepted English radio messages regarding the strength and disposition of the patrol forces that further enemy units would stand out or in during the next night. The commanding officer therefore decided to make for Bell Rock and to cruise in that vicinity during the evening and morning hours of May 31 and June 1, on the chance that enemy forces might cross that zone when returning to the Forth after the completion of operations. The departure of the fleet had not been noticed by either this boat or the neighboring boat, the *U-51*, which had been on the surface in its assigned sector close inshore since 4 a. m. Further out to sea the *U-52* had been on the surface in order to charge batteries outside the line of patrols, but like the *U-51* had not been aware of the departure of the enemy fleet. On the other hand the *U-24* (Schneider), which had been close inshore

to the southward of the Firth at daybreak, stood out toward his sector on receipt of the messages from the *U-32* and *U-66*, but was unable to make contact with the enemy. Owing to the increasing wind and sea, the *U-47*, which was stationed near Kinnaird Head close inshore, found it hopeless to attempt to follow the reported warships.

The attempted attack of the *U-66* on the Second Battle Squadron on leaving Cromarty is not mentioned in the English accounts. On the other hand, submarines were reported by the battle cruiser fleet standing out of the Firth of Forth on the occasion of the attack at 4.50 a. m. by the *U-32* on the light cruiser *Galatea*, which was on the left flank of the antisubmarine screen. While the first torpedo broke the surface immediately ahead of the *Galatea* the second passed close astern. Another submarine was reported by the cruiser *Yarmouth*, which the *Lion*, the flagship of Admiral Beatty, also reported dead ahead. This vessel, together with the other battle cruisers turned eight points to port, returning to the original course 20 minutes later; but before this could be effected the *Turbulent*, one of the destroyers of the screen, sighted a third submarine, which, however, was unable to make an attack. The principal submarine danger zone appeared then to have been passed. The disposition of submarines close to the enemy bases, on which such hopes had been placed by the Germans for damage to the enemy forces before the battle, proved of no avail. Furthermore, even in the service of information, the short range of visibility and their low speed had proven the submarines to be inadequate for this mission, so that the commander in chief could not even be informed of the fact that the main body of the Grand Fleet had put to sea. When at 6.37 a. m. the report of the *U-32* was received on the fleet flagship that two battleships, two cruisers, and a number of destroyers had been sighted standing out from the Firth of Forth on course SE., and this message was followed an hour later by the important report of the *U-66* that eight battleships, light cruisers, and destroyers were 60 miles eastward of Peterhead, the commander in chief at first inclined to believe that, then as in the past, the enemy had received warning of the departure of the High Seas Fleet. Opposed to this assumption was the fact that the time interval between the report of the departure of the fleet and the sighting of enemy forces was too short, and the strength of the units and the divergent courses of the detachments reported indicated that a connection between the known movements of the enemy and the German offensive was highly improbable. This conclusion was not influenced by the fact that shortly before the receipt of the message from the *U-66* the principal decoding station at Neumunster reported English intercepted radio messages showing that two battleships or battleship squadrons with accompanying de-

stroyers had left Scapa Flow. This message gave no insight into the enemy intentions. Neither tactical cooperation of the reported detachments, nor an offensive with the German Bight as objective, nor any connection with the pending German operations could be inferred from this information. The reports therefore did not influence the prescribed procedure, but only served to arouse the hope that it would be possible to bring a portion of the enemy fleet to battle.

Even on the English side, there was great uncertainty during the forenoon of May 31 as to the extent of the German operations. Apparently the English submarines on station near the German Bight had less opportunity than the German submarines near the English harbors to obtain information of value. Even the usual observation of the German radio traffic, which in the past had furnished the English with much of their available information, was denied them at this time on account of the special precautions which were exercised. The fact that at the beginning of the operations the fleet flagship *Friedrich der Grosse* had exchanged radio calls with *Entrance III* station ship at Wilhelmshaven did not betray to the enemy that the fleet flagship, and therefore the German fleet, was standing out.

Even toward noon the English radiocompass stations believed the German fleet to be still in the Jade. Although he was being continually informed by the Admiralty as to the developments, Admiral Jellicoe had no reason to surmise that a battle was pending, but rather supposed from the information received that one of the usual cruiser raids was in progress and that the High Seas Fleet would put to sea considerably later to support the returning cruisers. It did not occur to him that since the appointment of Admiral Scheer as commander in chief every German offensive would be planned with the idea of deliberately seeking battle. [This is somewhat different than the previous statement of Admiral Scheer that he did not intend to seek out the concentrated enemy fleet for the purpose of a fight to a decision and did not desire the enemy to force such a fight upon him.] This underestimation of the enemy, coupled with the previous operation against Lowestoft, resulted in a deployment of forces which was carried too far. He himself contemplated a concentration with Admiral Jerram's forces, which at 9.30 p. m. stood out from Cromarty, to take station about 90 miles to westward of the Norwegian coast on the line Lindesnes-Peterhead, while Admiral Beatty had orders to be with the battle cruisers and the 5th Battle Squadron at a point about 70 miles to the south-southeastward of the main body and about 110 miles to the westward of the Jutland coast in the area of the Great Fisher Bank. Only

then should the two forces approach each other to within visual signal distance, the battle fleet steaming to southward and the battle cruiser fleet to the northward. To fulfill the primary mission of drawing the enemy toward the fleet, the distance between battle cruiser fleet and the main body was too great.

Since all developments in the past had shown that in the North Sea area a battle was hardly to be expected, the English had in the course of time come to consider that the primary mission of the battle cruiser fleet was not close tactical cooperation with the battle fleet but rather a means of defense against German raids on the south-east coast, while the battle fleet itself was to be held back far enough to prevent the enemy from making an unopposed attack on the Tenth Cruiser Squadron, and thus rolling up the northern blockade line. An interval of 50 miles between the detachments of the Grand Fleet seemed to be the minimum to carry out these requirements. Thus the disposition of forces which Admiral Jellicoe chose in this instance was one which careful study and long experience had shown to be advantageous and which was always resorted to in case the enemy was known to be initiating an offensive with unknown objective. Only in the case of their own offensive operations was this procedure departed from and then the interval was reduced to about 40 miles. (Corbett: *Naval Operations*, vol. 3, p. 325.) This strategic disposition of forces would not have proven faulty in this particular case had not Admiral Scheer altered his original plan in the last minute, owing to the failure of air reconnaissance, and decided to put out with the main body immediately after the cruisers, a decision which, in the light of subsequent events, proved of the greatest advantage in bringing about the German victory in the cruiser engagement.

The route to the westward of Amrum Bank, passing through the enemy mine fields, had been cleared by the mine-sweeping formation and the fleet was led safely through to the open sea. Toward 8 a. m. Scouting Divisions I and II had reached a position about 35 miles west of Lister Deep. At about 10 a. m. the battle squadrons also stood to the northward of the English mine fields, headed then to the NW., passing Horn Reef lightship 35 miles abeam, and, following the route taken by the battle cruisers two hours earlier, laid course for the Little Fisher Bank, near the southern exit from Skagerrak. The commander in chief had ordered that in the event of the weather improving five airships were to ascend on May 31 or June 1, one to scout over the Skagerrak and one over the Hoofden, while the other three were to cover the sectors to the north and west, 280 to 200 miles from Helgoland. [See fig. 8 for position of airships at 3 p. m.] Therefore the commander of the airship detachment,

Commander Strasser, gave orders for those ships, which were assigned to the northern zone, to ascend at 2 a. m., while the two assigned to the southern area were to follow at 6 and 8 a. m. The unfavorable weather conditions, however, did not permit the carrying out of these orders until late in the forenoon. Two of the ships, *L-11* and *L-17*, were not able to clear their fixed hangers on account of cross winds at that time. In place of these, two airships from the rotating hangars at Nordholz, the *L-21* and the *L-23*, were substituted, so that at 12.30 p. m. all five ships were in the air. *L-14* headed toward the Skagerrak, *L-23* toward a point 240 miles to the eastward of Noss Head (Pentland Firth), *L-21* toward a point 120 miles eastward of Peterhead (Moray Firth), *L-9* to a point 100 miles eastward of Sunderland, and *L-16* to a point 80 miles to the eastward of Flamborough Head (Humber). Arrived at these points, the ships were to proceed to the southward on the line through these points, and passing from point to point, form a scouting line between the second and fourth meridians to protect the fleet against a flank attack from the English coast. Shortly after ascending, however, it was realized that, owing to the misty weather and the low-lying clouds at 300 meters, the airships could only obtain a very restricted field of vision.

Meanwhile the High Seas Fleet was proceeding in formation according to plan. The fleet steamed in single column, in the following order: Squadron III, fleet flagship, Squadron I, and Squadron II. [Fig. 13.] All detachments were up to strength with the exception of Squadron III, in which the *König Albert* was missing, having to remain in dock on account of condenser trouble which could not be neglected. Disposed in a circle around the fleet at distances of from 5 to 8 miles were the light cruisers, *Stettin*, *München*, *Frauenlob*, *Stuttgart*, *Hamburg*, and *Rostock*, each accompanied by 1 destroyer, while 26 other destroyers formed the antisubmarine screen for the fleet. [Fig. 13 shows the dispositions as follows: *Stettin* and *V-48* were directly ahead of Battle Squadron III. *Rostock* and *S-53* were on port beam of Battle Squadron III. *München* and *S-54* were on starboard beam of Battle Squadron III. *Hamburg* and *V-73* were on port beam of Battle Squadron II. *Frauenlob* and *G-42* were on starboard beam of Battle Squadron II. The screen for Battle Squadron III was composed of the First, Fifth, and Ninth Half Flotillas. The screen for Battle Squadron I was composed of the Tenth and Fourteenth Half Flotillas. The screen for Battle Squadron II was composed of the Thirteenth and Fourteenth Half Flotillas.] About 50 miles ahead were the 5 battle cruisers with Destroyer Flotilla IX disposed as antisubmarine screen, while about 8 miles ahead of

these Scouting Group II was disposed in a quarter circle on scouting line from the northwest to the northeast. [Fig. 14. There were three destroyers with the *Elbing*—*B-109*, *B-110*, *B-111*.] To these was added the flagship of the second leader of destroyers. Dead ahead was the light cruiser *Frankfurt* with 5 boats of the Twelfth Half Flotilla, to starboard the light cruiser *Wiesbaden* with 4 boats of the Eleventh Half Flotilla, and *Regensburg* with 2 boats each of the Third and Fourth Half Flotillas, to port the light cruiser *Pillau* with 3 boats of the Third Half Flotilla, and *Elbing* with 3 boats of the Fourth Half Flotilla. At 3 p. m. [the times used in this account are one hour greater than G. M. T., which is used in all British accounts and in the figures accompanying this translation. Thus 3 p. m. German time is 2 p. m. G. M. T.] the leading ship of the Squadron III stood 55 miles to the westward of Lyngvig, while the leading ship of the battle cruisers was 65 miles to the west of Lodbjerg.

In the same latitude, and almost perpendicular to the course of the Scouting Division II, the British battle cruiser fleet was approaching, at the head in double column the First and Second Battle Cruiser Squadrons, and 5 miles astern the Fifth Battle Squadron, while the ships of the First, Second, and Third Light Cruiser Squadrons were on a scouting line on a sector bearing SE. about 8 miles ahead of the capital ships. [Figs. 10 and 12.] Had Admiral Beatty held this course he would have passed about 40 miles astern of the German battle cruisers and 20 miles ahead of the main body at about 5.30 p. m. The mission of the German offensive, to cut off and bring to action part of the enemy fleet before the entire strength of the British fleet could be brought to bear, would in this manner very probably have been accomplished. Inasmuch as the British battle cruiser fleet had received orders, in the absence of any developments, after reaching the assigned position at 3 p. m., to swing off to the northward to effect a junction with the Grand Fleet, the situation developed in a different manner. As early as 2.30 p. m., Admiral Beatty, who was leading his forces in his flagship *Lion* at the head of the First Battle Cruiser Squadron, changed the disposition of the light cruisers, shifting the line of bearing to ENE.-WSW., with the center of the scouting line bearing SSE. from the *Lion*, so that the light cruisers in the proposed advance to the northward would form a screen between his own squadrons and the probable line of approach of the enemy forces. At the same time he altered the formation of his squadrons, so that the Second Battle Cruiser Squadron was in position 3 miles ENE. of *Lion*, and the Fifth Battle Squadron 5 miles NNW. of the First Battle Cruiser Squadron, in order that, after the change of course to the northward had been effected, one squadron would be on each flank of the *Lion*. This maneuver de

layed the advance to the eastward, but at 3 p. m., when the British cruiser commander estimated his position about 10 miles from the point he was due to reach at 3 p. m. (in reality he was 5 miles still farther to the NW.), signal was made for all units of the Battle Cruiser Fleet to change course to north at 3.15. At that time the First Battle Cruiser Squadron was 45 miles to the westward of the German battle cruisers, while between the eastern flank of the British forces and the western flank of the German forces there was only about 16 miles of open water. Although with the convergent courses which the German and British forces were steering contact would certainly be made sooner or later, it was distinctly to the advantage of the latter that this should occur as late as possible. The longer contact could be delayed the closer the forces of Admiral Jellicoe and Admiral Beatty would be to each other, and therefore the more unfavorable would be the situation for the Germans. It was therefore a lucky accident for the German fleet that shortly after the change of course to the northward a very trivial circumstance served to bring about an early contact of the forces.

At about 3 o'clock aboard the *Elbing*, Commander Madlung, which was on the extreme left flank on the scouting line, the Danish freighter *U. Fjord* was sighted to the westward, and the *B-109*, the flotilla leader of the Fourth Half Flotilla (Commander Adolf Dittmar), together with the *B-110* (Lieutenant Commander Vollheim), was sent to board and search the vessel. At practically the same moment this steamer was sighted also by the *Galatea* and *Phaeton*, the light cruisers on the right wing of the British scouting line, bearing about ESE. distant 12 miles. [*Galatea* was the flagship of the First Light Cruiser Squadron in fig. 12.] As it happened the freighter had stopped and was blowing off steam. While all other vessels of the battle cruiser squadrons swung to the northward at 3.15 p. m., the commander of the First Light Cruiser Squadron (Commodore A. Sinclair) aboard the *Galatea* headed toward the Danish steamer with his two ships, followed shortly by the *Inconstant* and *Cordelia*, and soon thereafter made out the stacks and masts of one, and then two, warships. At first these large boats of Flotilla II which were in the vicinity of the Danish steamer were erroneously held to be cruisers, and approaching closer the British vessels took up the chase, reporting at 3.20 by radio, "Enemy in sight." Eight minutes later these boats were recognized as destroyers and taken under fire by the *Galatea* and *Phaeton*. At that great range the *B-109* and *B-100*, which were soon straddled by numerous shots, could not return the fire. Soon, however, help appeared from the northeast, since the *Elbing* had sighted smoke in the direction reported by searchlight signal and was steaming toward it at full speed. The craft which she sighted under the smoke clouds

appeared at first to be battle cruisers on account of their high bow, and were reported by radio as such at 3.27; only after the enemy had turned to the northward to engage the *Elbing* in a running fight were they recognized as light cruisers. Then the *B-109* reported by radio, "Scattered enemy forces in 164 y IV" (about 90 miles to the westward of Bovbjerg). Shortly thereafter the *Elbing*, being under fire herself, opened on the enemy at ranges of from 13,000 to 14,000 meters, and in spite of the relative speed of the vessels on opposite courses was soon able to obtain a hit on the *Galatea*, the first hit of the Skagerrak battle. The shot struck under the bridge, penetrated two decks, but unfortunately did not explode.

At 3.39, after the first straddling salvo, the *Galatea* turned away, followed by the other vessels of the First Light Cruiser Squadron, *Cordelia* and *Inconstant*, and was apparently attempting to draw the German ships away to the northwest. In this manner Commodore Sinclair was carrying out the idea of making it possible for the British battle cruiser fleet, which he knew at the time of his advance to be about 20 miles WSW. of the *Galatea*, to cut off from the southward the increased number of enemy light cruisers and destroyers which he had meanwhile sighted to the northeastward, as well as a large smoke cloud "as from a fleet" in the north-northeast. By this act he renounced from the start any possibility of obtaining further information regarding the enemy. Not satisfied with this, the Third Light Cruiser Squadron joined this maneuver, after its commander, Rear Admiral T. D. W. Napier, had ordered the aircraft tender *Engadine* to seek cover with the battle cruisers. The *Elbing*, on the other hand, turned to follow the enemy on the course which they had set, but was cautious enough after a few minutes to bear off to the northward, so that from 3.48 to 4.07 the *Galatea* and *Phaeton* could only be kept under fire at intervals at extreme range, while the other English cruisers to the westward held out of range. Simultaneously, the *Frankfurt* and *Pillau* closed in on the *Elbing* from the eastward in about the same latitude.

Aboard the *Frankfurt*, the flagship of the commander, Scouting Division II, Rear Admiral Boedicker, as well as aboard the *Lutzow*, the report of contact with enemy forces made by the *Elbing* by searchlight, at 3.30 p. m., had been misread and was understood to mean that the latter had sighted an enemy fleet of from 24 to 26 battleships. Upon receipt of this message Admiral Boedicker had immediately abandoned scouting operations to the northward, since the horizon was very clear in that direction, and, calling all other vessels of the scouting line, stood to the westward at full speed. In passing the *Pillau* joined him, and at 3.40 p. m. a radio was received from the *Elbing* reporting enemy battle cruisers 105 miles to the

westward of Hanstholm. Thereupon Rear Admiral Boedicker, with the *Frankfurt* (Capt. Thilo von Trotha) and the *Pillau* (Commander Mommsen) increased speed to 26 knots and changed course in this direction. Ten minutes later, while a number of torpedoes were running toward the German cruisers [the British do not mention firing torpedoes at this time], five cruisers of the *Caroline* class, in separate groups were sighted beyond the *Elbing* on a northerly course, but no battle cruisers were seen. Doubtless it was a case of an error or mistake in the radio from the *Elbing*, and this was shortly corrected by a further radio message from that vessel. While the *Elbing* led the German forces, eight enemy cruisers were gradually made out, and at 4.17 p. m. both *Frankfurt* and *Pillau* opened fire on the leading enemy ships. [Fig. 17 shows disposition of Scouting Division II; *Frankfurt* and *Pillau* were concentrated. *Elbing* was about 2 miles ahead and *Wiesbaden* about 4 miles in rear. The *Regensburg* was about 2 miles on the starboard beam of Scouting Division I. The British light cruisers were disposed as indicated.] Since, however, several of the enemy sheered out, the range became too great and fire ceased, although the German cruisers were steaming at full speed after them.

The movement of the *Elbing*, and later the *Frankfurt* and *Pillau* was followed soon by Scouting Division I. Upon receipt of the first message from the *Elbing*, that smoke had been sighted bearing southwest, Admiral Hipper, at 3.27 p. m., advanced on course WSW. with ships disposed at wide intervals, accompanied by the light cruisers *Wiesbaden* and *Regensburg*, which had closed in from the right wing of the scouting line. Soon thereafter, while under the impression that the *Elbing* had reported the enemy fleet of from 24 to 26 battleships, due to a mistake in the signals, he brought his ships in column on course SSW., since the ring of splashes around the *Elbing* appeared to indicate the prospect of an immediate action on that bearing.

The further reports of the *Elbing* and the commander of Scouting Division II led to the conclusion that the enemy forces consisted only of four light cruisers of the *Calliope* class, which were being pursued to the northward by the *Elbing*, *Frankfurt*, and *Pillau*. Therefore, at 3.45 p. m. [shown at 2.45 in fig. 16. The courses in the text are magnetic, while in the figures true north is at the top of the sheet. Variation is 14° east], Admiral Hipper changed direction to the westward, at 3.50 [this is 2.50 in fig. 16] changed course again to WNW., nine minutes later formed column on course NNW., and at 4.10 p. m. following the light cruisers at 23 knots to the northwest [this is shown at 3.10 in fig. 17]. With this maneuver he unwittingly followed the tactics desired by Admiral Beatty. This officer had

perceived from the reports of the *Galatea* that the enemy forces did not consist of a few individual units, but comprised a strong fleet. He decided, therefore, to abandon the original plan of operations in the face of these new developments and, if possible, to cut off the retreat of these reported enemy forces. Scarcely had Admiral Hipper turned to course WSW. when Admiral Beatty changed course to SSE. with the First and Second Battle Cruiser Squadrons [at 2.35 in fig. 15], a maneuver which was followed only some few minutes later by the Fifth Battle Squadron, on account of the signal being difficult to make out. This short delay was sufficient, however, to increase the interval between the latter and the battle cruisers to about 10 miles, since they were steaming at 22 knots [This opening out of the Fifth Battle Squadron is shown in fig. 15.] At 3.35 p. m., when the *Galatea* reported heavy smoke clouds bearing ENE. "as from a fleet," Admiral Beatty was induced to dispatch the destroyers *Onslow* and *Moresby* to the aircraft tender *Engadine*, which was in the vicinity, to order out a seaplane for reconnaissance in that direction. Twenty minutes elapsed before the plane could be launched and had taken off. On the other hand, at 3.51 the *Galatea* reported that aside from destroyers and light cruisers the smoke sighted came from about seven large ships. [See position marked "C" of *Galatea* as noted in fig. 16.] From their bearing, position, and the fact that this force maintained a northerly course, Admiral Beatty believed that he had advanced sufficiently far to the southward to cut off this detachment before they could reach Horn Reef. He therefore eased off gradually to port with the ships in three columns until the course was east at about 4 p. m., ready to proceed at full speed at any instant. As a matter of fact, the German battle cruisers were directly approaching him at that time on course WSW. The distance between these forces was still about 29 miles when the Germans, still outside the range of visibility of the English, changed course to NW. at right angles to the latter, drawing away to follow the light cruisers *Elbing*, *Frankfurt*, and *Pillau*. After Admiral Beatty had failed to sight the enemy on course east and a further message from the *Galatea* reported that the enemy was being drawn to the northwest behind the First and Third Light Cruiser Squadrons, he altered course to NE. and increased speed to 24 knots. [At 3.12 in fig. 17.] At this time the Fifth Battle Squadron bore WNW. distant 7 miles, the Second Battle Cruiser Squadron NNE. distant 3 miles from the First Battle Cruiser Squadron, while the *Nottingham* and *Dublin* of the Second Light Cruiser Squadron steamed to starboard opposite the Second Battle Cruiser Squadron and the *Southampton* and *Birmingham* followed about 5 miles astern. At 4.20 two rapidly approaching columns of large warships were sighted bearing WSW.,

and at 4.22 the *Seydlitz* made out two battle cruisers (Second Battle Cruiser Squadron), distinguished by the tripod masts, distant about 15 miles.

One minute later the *Princess Royal* made out smoke to the east by north, but not until 4.25 did the other British ships sight the smoke columns, which were later distinguished as masts and stacks bearing ENE. Whether the British ships stood out better against the clear background of the western horizon, or the German range finders and glasses were better, or whether the light gray painting of the German ships was more favorable need not be argued. At any rate, the British were sighted earlier than the Germans, though some time elapsed before the German forces could observe further details as to course, speed, and formation of the enemy which was in sight. It could only be roughly determined that their force, among which appeared to be six large warships, was steering a northerly course, and this fact was decisive in the selection of the battle course. Not being inclined to avoid this opportunity for battle, as contemplated in the original operations plan, Admiral Hipper decided to accept battle on this unfavorable course, even though in so doing he would be drawn away from his own fleet. He therefore held his course, following Scouting Division II, and ordered fire distribution from the right, read at any moment to make signal to open fire. At 4.29 no change of course on the part of the enemy could be discerned. [It should be especially noted that Hipper did not sight the Fifth Battle Squadron at this time. This squadron, as is shown in fig. 18, was then too far away to the westward. Many critics of Beatty have argued that he should have brought the Fifth Battle Squadron into action simultaneously with the battle cruisers. But had Hipper sighted 10 British ships it is certain that he would have turned to the southward toward Scheer and avoided action. It therefore was fortunate for the British that Hipper saw only six enemy capital ships.]

Meanwhile Admiral Beatty had been enabled to confirm the bearing of the enemy forces, and finding that in trying to accomplish his purpose of cutting them off from their base he had advanced too far to the northward, changed course back to east and sounded "Clear ship for action." At 4.33 he ordered the Second Light Cruiser Squadron to take station ahead with the Ninth and Thirteenth Flotillas, while the Second Battle Cruiser Squadron swung in behind the First on course ESE. to form line of battle. [Note G, fig. 19.] At the same time the Fifth Battle Squadron, which was then bearing WNW., distant 8 miles, was ordered by signal to advance to the eastward at full speed. Visibility was good, the sun at their backs, and the wind WNW. If Admiral Hipper held his course the British battle cruisers would stand between him and his base.

Whether the enemy was supported or not, Admiral Beatty's mission was to bring ships of the same class to battle and to maintain contact with these as long as he was not obviously inferior in numbers. In this case, however, he had a measurable superiority, his position appearing so favorable both tactically and strategically that he could not be in doubt as to the correctness of his decision.

On the German side the movement of the Second Battle Cruiser Squadron observed at 4.33 aroused the somewhat mistaken impression that the enemy was changing from column formation to deploy on battle line to the southward; therefore Admiral Hipper swung off to starboard and went on course southeast. This new movement of the enemy was followed all the more willingly, since on this course was offered the possibility of drawing the enemy forces toward his own main body. At the same time he reduced speed from 23 to 18 knots in order to give the three vessels of Scouting Division II opportunity to close up. The latter had sighted the approaching enemy seaplane a few minutes earlier. This plane had been forced to remain at a low altitude on account of the low-lying cloud banks and was, therefore, taken under fire at ranges of from 4,000 to 5,000 meters. Admiral Boedicker was about to send a detachment of destroyers to investigate a steamer which was in sight having the appearance of an aircraft tender when Admiral Hipper ordered the light cruisers to assemble on Scouting Division I. These vessels thereupon put about, and this maneuver was the only fact of importance which the airplane was able to observe and report by radio. In attempting to carry out further reconnaissance the motor failed and the plane was forced to land on the water; was hoisted in a quarter of an hour later.

Meanwhile on the German and British battle cruisers all range finders and telescopes were directed on each other. According to observations on the *Lutzow* the enemy appeared to be standing on a southerly course at 4.35 p. m., three *Lions* leading, then *Tiger* and two *Indefatigables*, while at a great distance astern and barely visible were four or five *Queen Elizabeths*, while a large number of light cruisers and destroyers were seen steaming to the southward. All hands were at battle stations and awaited with expectancy the signal to open fire.

At 4.44 p. m. the German ships were clearly recognized as to their class by the *Lion*, and it was believed that the following ships stood before them, viz: *Hinderburg*, *Lutzow*, *Derfflinger*, *Seydlitz*, and *Moltke*. It was a momentous event, which no one who had experienced it could ever forget, when, after a breathless approach, the British and German battle cruisers, the most beautiful ships of each fleet, stood aligned with majestic confidence "like fate itself," and swinging into battle line let loose the first thunder of

gunfire which followed the preceding quiet and concentration of forces.

Once before, in fact, these same ships had taken the measure of each other in battle, on January 24, 1915, but this time the situation was entirely different. At that time the contact occurred when all preparations had not been completed on the German side nor had provision been made to support the battle cruisers. This time the meeting was sought by the Germans, and the full strength of the German fleet was ready to prevent them from falling a victim to superior forces. In the erroneous assumption that the High Seas Fleet had not left the Jade up to noon, and without sufficient reconnaissance ahead of him despite the large number of his light forces, Admiral Beatty believed that this time he could achieve what had previously been impossible; namely, to cut off the battle cruisers from their base and with 10 ships opposed to 5 to inflict a decisive defeat. Victory appeared to him to be certain as he altered course of the battle line toward Horn Reef—he did not know what this decision was to cost him.

Admiral Jellicoe also believed the German Fleet to be still in the Jade when, at 3.20 p. m., on the *Iron Duke*, at a point about 65 miles to the north-northwestward of the position in which the German ships were sighted, he received the report of the *Galatea*. At 3 o'clock, according to the fix obtained on the *Iron Duke* he was still about 19.5 miles behind the position he intended to reach at that time on account of the delays occasioned by the usual searching of merchantmen and fishing vessels. An increase of speed over the cruising speed of 15 knots did not appear possible if the destroyers were to retain sufficient fuel to accompany the fleet for two days longer as planned. The impression made on Admiral Jellicoe on receipt of the first signal, since only enemy light cruisers and destroyers were mentioned, was that the German forces, finding themselves opposed to superior forces, could find no other way to escape the danger of being cut off from Horn Reef than by going through the Skagerrak. In that case the Third Battle Cruiser Squadron, which, at that time, was in the formation about 20 miles ahead of the Grand Fleet and close to the entrance of the Skagerrak (about 50 miles WSW. of Lindesnes), was in a very favorable position to block this attempt. [Figs. 10 and 11.] Therefore he delayed dispatching the Third Battle Cruiser Squadron to join the battle cruiser fleet as originally planned, and, further, he saw no reason for altering the present course of the fleet. He then ordered all vessels to raise steam in all boilers and kept on the same base course at the same speed continuing to zig-zag. On receipt of the message from the *Galatea* at 3.43 that large clouds of smoke "as of a fleet" had been sighted to the east-

northeastward of the position of that vessel, about 95 miles to the westward of Lodbjerg, Admiral Jellicoe discontinued the zigzag course being steered to avoid submarine attack, and advanced at 17 knots on course SE. by E. Twelve minutes later (3.55) he increased speed to 18 knots, ordered his ships to expedite raising steam in all boilers by every means, and to make all final preparations in clearing ship for action. At 4.02 he swung all columns toward Horn Reef on course SE. by S. and ordered the advanced cruiser screen to increase the interval to 16 miles. A few minutes later he received the 3.31 p. m. position of the *Elbing* and the *B-109*, from the Admiralty. [Notes F and G, fig. 15.] This had been obtained by means of the radio compass stations—a distinct strategic advantage, which the German commander in chief did not possess. Only when Admiral Jellicoe received by radio the position of Admiral Beatty at 4.15 p. m. did he realize that according to the D. R. positions of the *Iron Duke* and the *Lion* these two flagships were separated by 71 miles. (It developed later that there were errors in navigation in the determination of these positions.) Thereupon he increased speed to 19 knots. At that time there was no cause for apprehension over the great interval between these forces, since according to reports, Admiral Beatty was then on course NE. at 23 knots, while the *Galatea* reported the enemy following the First Light Cruiser Squadron in a northwesterly direction. From this the estimate of the situation showed that the enemy forces consisting of light cruisers and destroyers were being pursued to the northward by the battle cruiser fleet. In that case the enemy must meet the advanced cruiser screen of the fleet at about 5 p. m. Therefore all flag officers received orders to inform the divisions under their command of the situation, and in particular Commodore Hawksley, the commodore of the flotillas, was warned to prepare to sight enemy forces within a very short time.

Scarcely was this flag signal hauled down when further reports showed the situation in an entirely different light. At 4.40 p. m. an urgent radio from the *Lion* reported the sighting of five enemy battle cruisers and a large number of destroyers; a second message designated their course as S. 55° E., while a third stated that Admiral Beatty was engaged in battle. All hope of being able to attack with the battle fleet in a short time was shattered. It appeared now that instead of the general engagement which was sought this action was to be a repetition of the previous vain attempts to chase the enemy battle cruisers. The previous precautionary policy of holding back the fleet to await developments was now at an end as a result of these last reports. At 5 p. m. he increased the speed of all squadrons

to 20 knots, changed formation to column open order to increase speed over the ground, and directed the Third Battle Cruiser Squadron, under Rear Admiral the Hon. H. S. Hood, to rejoin the battle cruiser fleet at full speed to support the latter.

At 4.15 p. m. Admiral Hood, with the battle cruisers *Invincible*, *Inflexible*, *Indomitable*, and the light cruisers *Chester* and *Canterbury*, accompanied by the destroyers *Christopher*, *Ophelia*, *Shark*, and *Acanta*, had, on his own initiative, increased speed to 22 knots and changed course to the eastward upon receipt of the first message from the *Galatea* that the enemy light cruisers were being pursued to the northward in the hope of cutting them off. On the further report that enemy forces had changed course to the southward, he had gone on course S. 26° E., when the welcome order to join forces with Admiral Beatty was received. Admiral Hood's forces were at that time about 25 miles ahead on the port side of the *Iron Duke*, and about 43 miles to the N. by E. of the *Lion*, the flagship of the First Battle Cruiser Squadron [the *Lion* was flagship of the battle cruiser fleet: *Princess Royal* was flagship of the First Battle Cruiser Squadron], according to the 4.50 p. m., reported positions. Since the *Lion*, according to the last reports, was on course S. 55° E., Admiral Hood expected to make contact quickest on course SSE., and therefore at 5.12 stood on this course at a speed of 25 knots. The possibility of overhauling the faster vessels of the First and Second Battle Cruiser Squadrons if they maintained a southerly course was extremely small. Later it was to be shown what an unexpected effect was to result from this advance of the Third Battle Cruiser Squadron.

After the detachment of the Third Battle Cruiser Squadron there followed half an hour of expectant waiting on the part of Admiral Jellicoe, since the commander in chief received no reports of what was transpiring in the meantime with the battle cruiser fleet. In particular he was without information regarding the Fifth Battle Squadron. When, at 5.17 p. m. he inquired of the commander of that squadron, Rear Admiral Evan-Thomas, if he were with Admiral Beatty's forces, he received the laconic reply, "Yes; I am engaged with enemy." There appeared, however, to be no immediate cause for anxiety; on the contrary, Admiral Jellicoe at the time had the greatest confidence that "under the determined leadership of Admiral Sir David Beatty, with a force of six battle cruisers and four of the best and fastest battleships, it was certain that the five German ships would suffer severe injury so long as it was possible to hold them within range." (Jellicoe: *The Grand Fleet*, p. 329.) "In particular the vessels of the Fifth Battle Squadron were superior to the German ships in fighting

strength, while even the slowest vessel of that squadron possessed sufficient speed to enable it to avoid superior forces." Much greater apprehension was caused the commander in chief by the fact that the deployment of all his forces to the southward would leave the exits of the Skagerrak and the northern waters between Scotland and Norway free to the enemy blockade runners, auxiliary cruisers, and mine layers which might be at sea and afford them an easy access to the Atlantic Ocean. In order to prevent this, he ordered, at 5.38 p. m., the commander of the Tenth Cruiser Squadron, Admiral Tupper, to reestablish the blockade lines to the Norwegian coast which had been withdrawn to the westward on account of the German submarine activities. At 5.50, as a result of the reports from Admiral Beatty, Admiral Jellicoe sent to the Admiralty the important message that a battle was imminent. Thereupon all docks and harbors along the coast were placed in readiness. Tugs, pumping vessels, and other auxiliary vessels raised steam to be in readiness to render aid to damaged ships of the Grand Fleet without delay. Nowhere was the tension greater than in the squadrons and flotillas which were left behind in port when the radio reports with the red bands indicating urgency showed that important events were transpiring at sea. The Harwich Force under Commodore Tyrwhitt suffered especially, since it had been repeatedly stated that in the event of battle they should immediately seek junction with the Grand Fleet. An urgent request for orders from the Admiralty remained unanswered. On the other hand, toward 6 p. m. Commodore Tyrwhitt received a radio from Admiral Bradford stating that the latter with the Third Battle Squadron and the Third Cruiser Squadron under his command, had decided to leave his station near the Swim to proceed to Black Deep Lightship. Thereupon the commander of the Harwich Force could no longer be held back. He could still reach the frequently patrolled area near Horn Reef with his cruisers and flotillas in sufficient time to be in position to attack the retiring German forces during the night. At 6.15 he therefore notified the Admiralty that he was putting to sea, but at the same moment received orders from the latter to continue fueling his vessels, since he might be required later to relieve the light cruisers and destroyers attached to the battle cruiser fleet. The commodore saw in this order only an answer to his first request. He decided to await the results of his report that he was at sea and proceeded to stand out. Twenty minutes later he was in receipt of the following orders: "Return immediately and await orders." (Corbett: Naval Operation, Vol. III, p. 350.)

The reason for this lay in the fact that in the Admiralty there was always the fear that the German offensive to the northward

or to the northwest might be simply a maneuver carried out as a diversion to cloak a large-scale offensive in the channel, and they could not risk leaving the easterly exits of the channel entirely devoid of warships in the interest of a fleet action. In any event they decided to await further developments before reaching a final decision.

On the German side the full available strength of the fleet was employed in this offensive without regard for the protection of the German Bight in the meantime. Thus there were no reserves of any importance left in the harbors. Of the 11 airships which were ready for service at the time, 6 remained in their hangars, as Commander Strasser, the commander airship detachment, deemed it advisable, in accordance with the existing operation orders, to hold these vessels in reserve for the action on the second day, especially since weather conditions were unfavorable. Even those ships which had put out were delayed 12 hours on that account, so that on the occasion of the first contact between the German and British forces none of these airships had passed the line between Terschelling and Horn Reef. It is impossible to estimate the influence on the trend of events had the *L-23* and the *L-14*, especially, been able to reach the area which had been assigned to them in the vicinity of the Skagerrak at the time designated. It was only to be hoped that the airships would even then make contact with the enemy forces. Practically all the airships had received relayed radio messages regarding the action of Scouting Division II, as well as the course and position of the German and British battle cruisers. *L-21*, Lieutenant Commander of Reserve Dietrich, which was assigned the scouting area over the northeasterly part of the Dogger Bank, did not deviate from this mission to protect the NW. flank of the fleet as a result of these messages, since the *L-23* and the *L-14* to the eastward of his position were considerably closer to the scene of activity, while the *L-9*, Lieutenant Commander Stelling, had abandoned the scouting zone to the westward on account of engine trouble and returned to the hangar. On the other hand, the *L-23*, Lieutenant Schubert, which was closest to the scene of the reported action, left Horn Reef at 5 p. m. to reach that area. When the commanding officer learned from later messages that Admiral Hipper was opposed by superior forces, he decided to alter this plan and take over the protection of the northern flank of the battle cruisers in place of the *L-14*, which was known to be far astern. He was further confirmed in this decision when upon receipt of a message at 5.50 p. m. from the *L-14*, Lieutenant Commander of Reserve Bocker, he learned that that ship was then at a point 15 miles to the northward of Horn Reef and was laying course toward the reported enemy forces. Shortly thereafter the *L-14* appeared

far astern to starboard, while the *L-23*, which was then about 45 miles to the westward of Lyngvig, steered N. 30° E. toward the Skagerrak. Meanwhile the *L-16*, Lieutenant Commander Sommerfeldt, had reached a point 60 miles to the westward of Terschelling at 5.10 p. m. to scout from there on over the Hoofden, while the *L-9*, which was assigned the adjoining area to the northward, had returned to the hangar at 4.28 from a point 60 miles to the westward of Terschelling on account of the breaking of the starboard propeller shaft, landing in Hage at 6.45 p. m. At 6.30 p. m. the *L-21*, according to the chart record of the voyage, had reached a point within 50 miles of the place of reported contact of the German forces with the enemy, but owing to the misty weather, which was seldom lighted up, and the low-lying clouds, had only a restricted field of vision. Contrary to expectations, up to that time none of the airships had sighted any surface craft, either British or German, as the visibility was variable between 3 to 10 miles. [This entire account shows most forcibly the limitations of airships.]

The German commander in chief was therefore forced to rely from the start on the screen of light cruisers and destroyers for all information regarding the enemy. At 3.28 p. m. he had learned that the *B-109*, about 85 miles WNW. of Bovbjerg, had sighted scattered enemy forces. The leading ship of Squadron III had at that time reached a position about 50 miles to the westward of Lyngvig. The enemy was therefore 50 miles to the NW. of the main body and about 25 miles SW. of the German battle cruisers. From the reports, however, it was impossible to judge the strength or character of these forces. The commander in chief therefore shifted the *Hannover*, the flagship of the rear admiral of Squadron II, to the rear of the column, and while closing the other ships up to distance for battle, held his course, speed, and formation, without approaching in line of squadrons. When, half an hour later, Admiral Hipper reported strong enemy forces, Admiral Scheer, had "clear ship for action" sounded on drum and bugle and increased speed of the squadrons to 15 knots. The next reports from the commanders of Scouting Divisions I and II brought disappointment, since the previous reports of strong enemy forces and particularly of battle cruisers were retracted. Apparently only 4 light cruisers had been sighted, which were being pursued to the northward. At 4.30 p. m. Admiral Hipper again reported strong enemy forces comprising six ships about 95 miles west of Lodbjerg on a northerly course, while the enemy light cruisers had turned away. A complete view of the situation was first obtained at 4.55 upon the receipt of the following message: "Six enemy battle cruisers and light forces in 151 gamma (95 miles west of Lodbjerg) on course SE. Scouting Division I 004 epsilon (85 miles WNW. of Lodbjerg) SSE., 18 knots. Am engaged in battle

with six battle cruisers. Request position own main body. Sig. Commander Scouting Forces." Accordingly the situation was developing very favorably, since Admiral Hipper appeared to be successful in following the operations plan of locating a part of the enemy forces and engaging them on a course to draw them toward the main body. The distance of the German battle cruisers from the latter was at that time about 60 miles. It was therefore deemed essential to support the weaker German battle cruisers as soon as possible while at the same time cutting off the retreat of the enemy forces. As time was pressing, Admiral Scheer did not assume the customary formation of column of divisions for approaching the enemy, the so-called "approach formation," but advanced in column at full speed at 5.05 p. m. on course NW., while the destroyer flotillas left their stations in the antisubmarine screen and formed on their leaders. This decision, together with the position of the main body, was transmitted to the commander scouting forces by radio. The situation appeared to be developing more favorably than was first assumed, as far as Scouting Divisions I and II were concerned, since no further strong enemy forces were reported. Thus, Admiral Scheer believed he had sufficient time for a large enveloping movement and therefore at 5.18 changed course of the squadrons to west, in order to bring the enemy battle cruisers between his own main body and the scouting forces, thus preventing the enemy from escaping at high speed upon sighting the German fleet. But even while course was being changed the commander of the Scouting Division II reported a battleship squadron of five ships to the northward of the six enemy ships following the latter on course SE. which threatened to join in the engagement between the battle cruisers and damage or cut off the German ships. Under these conditions the situation must become critical for Admiral Hipper in a short time. Furthermore, the westerly course of the main body then appeared unfavorable for an oversight of the battle and the further development of the action. Admiral Scheer was thus compelled to abandon the scarcely initiated enveloping movement and to proceed at full speed to form a junction with his battle cruisers. At 5.25 he therefore resumed column formation for all squadrons and returned to course north.

CHAPTER 10

SKAGERRAK—FIRST PHASE—ACTION OF THE BATTLE CRUISERS AND PURSUIT OF BRITISH TO NORTHWARD

For more than a half an hour the cruiser action raged. Since 4.40 p. m. the signal, "Fire distribution from the left," had been flying on the *Lutzow*, the flagship of Admiral Hipper. But the German commander still hesitated to give the signal to open fire, as the range of the leading enemy ship at that time was 18,700 meters by range finder. This was about the extreme range for the 30.5-cm. (12-inch) guns of the *Lutzow* and *Derfflinger*, while the 28-cm. (11-inch) guns of the *Moltke* could only fire at ranges less than 17,850 meters. On the other hand the *Seydlitz* and *Von der Tann* had 28-cm. guns, which could range to 19,200 and 20,500 meters, respectively. At these ranges the elevation of the guns on the *Lutzow*, *Derfflinger*, and *Moltke* was 13.5°, on the *Seydlitz* 16°, and on the *Von der Tann* 20°. The reason for this reduced angle of elevation on the newer ships is given North Sea, Volume III, page 207. All 15-cm. (6-inch) guns had an extreme elevation of 19°, giving a range of 14,950 meters.

As a matter of fact the 30.5-cm. (12-inch) guns of the English rear ships could not range over 17,000 meters, but the 34.5-cm. (13.5-inch) guns of the three leading ships had a range of not less than 21,000 meters, while the *Tiger* had a range of over 21,900 meters. On account of the decisive effect of the first hits Admiral Hipper had to make every effort to pass that danger zone, in which only the British ships could fire, as rapidly as possible. At 4.45 p. m. he therefore changed course of the battle cruiser's two points to starboard to SSE., thus bringing the ships in line of bearing for a more rapid approach to the enemy. To the general surprise, however, the enemy guns remained silent, though as a matter of fact the British were still in the midst of an evolution. Admiral Beatty was well aware of the tactical advantage which the longer range of his guns afforded him, and one would suppose that he would utilize this advantage by means of the superior speed of one or two knots which his ships possessed, particularly in view of the fact that the larger caliber guns and the additional speed of his ships had been obtained at a sacrifice of protective armor. It was shown, however, as in the previous action at the Dogger Bank, that the theoretical requirements of the British gunnery tactics—to engage the enemy at the greatest possible range and beyond the range of the enemy guns—

was not so easily carried out in practice. Entirely aside from the fact that the English range-finder development had not kept pace with the increased range of the guns, the sun gauge to the westward proved the most unfavorable for visibility, since the silhouettes of the German ships with their light gray painting were indistinct and blended into the background of sky and water. Thus, even when the range was reduced to 18,000 meters, Admiral Beatty still believed himself to be outside of the effective range of his guns. Not until 4.45 did he change to the projected battle course ESE. with his flagship, while the other vessels sheered out of column on signal, to form line of bearing NW.-SE., a formation which appeared to be the most favorable for avoiding smoke from the stacks and the guns with the prevailing wind NW.

The British battle cruisers were still in the midst of this evolution when, at 4.48, the guns of the entire German line blazed out. [See fig. 10. From the German charts of the battle the opening range was 16,000 yards instead of 16,500 yards, as given in fig. 19.] Half a minute later the leading British ships opened fire, followed only some time later by the rear ships *New Zealand* and *Indefatigable*. The first salvo from the *Lutzow*, Captain Harder, was fired at 15,400 meters, the *Derfflinger*, Captain Hartog, and the *Seydlitz*, Captain von Egidy, at 15,000 meters, the *Moltke*, Captain von Karps, at 14,200 meters, and the *Von der Tann*, Captain Zenker, at 16,200 meters. Thus, in accordance with the signal, "Fire distribution from the left," each ship in the German line fired on the corresponding enemy ship, except the *Von der Tann*, which fired on the rear ship instead of the fifth ship, thus leaving the *New Zealand* unengaged, owing to the smaller number of German ships. On the other hand, Admiral Beatty was attempting to take full advantage of his numerical superiority by concentration of fire from his two leading ships on the *Lutzow*. Therefore, the *Queen Mary*, as third ship in the British column, should have taken the *Derfflinger* under fire. This ship, however, had not made out the signal for fire distribution and fired at first at the *Seydlitz*, so that for about 10 minutes, the *Derfflinger* was not under fire from any ship. Further, the *Tiger* had also missed this signal, and opened fire on the *Moltke*, together with the *New Zealand*, so that that vessel, as well as the *Lutzow*, was under concentrated fire from two ships. Only the *Seydlitz* and the *Von der Tann* fought ship against ship—i. e., the *Queen Mary* and *Indefatigable*. As a result of the unfavorable visibility conditions and the unreliable range-finder readings, the fire from the British ships was at first very slow. As was observed from the *Regensburg*, which at the time was cruising about 2,000 meters on the unengaged side of the German line at the head of Flotillas II and VI, the shots were far over the German

battle cruisers, so that for a time the *Regensburg* and the destroyers were in greater danger than the larger ships. One enemy battle cruiser, probably the *Tiger*, fired for about 10 minutes at the range of the *Regensburg* while the latter was abeam of the *Moltke*. The advantage of the weather gauge lay with the Germans, since the smoke of gunfire and from the stacks cleared quicker from the field of vision.

Further, it was much easier for the Germans to get on the target on account of their excellent range finders and observation instruments. Besides, the newly constructed periscopes of the target-bearing director, by means of which all guns of the battery were kept constantly trained on the enemy, with electric repeaters, permitted the observer to make out all details of the enemy ships, even at extreme range and greatly assisted observation of the effect of hits. In the German fleet all the training had laid great stress on the importance of "getting on" quickly and rapid fire. The results of this training soon showed up brilliantly, and the gunnery officers of the battle cruisers, Commanders Paschen and Von Hase, Lieutenant Commanders Foerster and Schirmaker, and Commander Mahrholz, were able to attain considerable fire superiority over their opponents. For a space of one or two minutes the British battle cruisers disappeared entirely in the midst of the columns of water thrown up by the German shells. After the first salvo at 4.51 p. m. the *Lion* and *Princess Royal* were each hit twice and the *Tiger* four times. (These and other hits described are from British reports and not German observations.) While the two hits on the *Lion* resulted in a number of casualties among the 10.2-cm. (4-inch) guns crews, one of the heavy caliber hits on the *Princess Royal* put the forward turret out of action. Ten minutes later one of the guns in this turret was again made ready for action, but the other remained out for the entire battle. Shortly thereafter the second turret was hit. This shell did not penetrate the armor, but, exploding outside, filled a number of compartments with smoke and gas, while the electric generators going out of commission left the ship in darkness. The damage done to the *Tiger* at the beginning of the action was even greater. As early as 4.52 p. m. this vessel was hit in the fore-castle. Immediately afterwards two shells of a salvo of four penetrated the ship. One of these pierced the 23-cm. (9-inch) armor of the after-turret bar-bette, but unfortunately did not explode and remained resting between the two guns in the middle of the turret. The other shell detonated on striking the armor of the third turret and, in addition to putting both guns out of commission for some time, destroyed the range finder and periscope. Owing to the fact that two of the *Tiger's* turrets were out of commission for a while it was difficult for the battery to keep on the target.

Meanwhile Admiral Beatty, by an increase of speed which forced the rear ships to steam at 26 knots and, through gradual small changes in course to starboard, had brought the enemy to bear more and more on the quarter. This brought the battle lines closer together so that the fairly powerful German secondary battery was soon enabled to open fire. The latter had to be diverted shortly toward a number of British destroyers which had dropped too far back on the quarter, owing to the change of course of their own squadrons, and which now sought to regain the head of the column by steaming between the two battle lines, whereby the heavy smoke from their stacks still further obscured the British view of the German cruisers. At 4.54 p. m. the distance between the two forces had dropped to 11,800 meters according to the English range finders, and Admiral Beatty had just ordered the rapidity of fire increased when, for the first time since the German ships had swung into column, the *Queen Mary* made two hits on the *Seydlitz* at 4.55 and 4.57. One of these struck the electric switchboard of the forward distribution room, putting it out of commission, while the other penetrated the barbette armor at the first loading stage of the intermediate turret and caused the powder cases lying there to explode. The turret was out of action and practically the whole turret's crew was killed in the resulting flames, but it was possible to flood the lower magazines in sufficient time to avoid more serious damage. At 5 p. m. the *Lutzow*, the flagship of the German forces, was struck for the first time. A salvo of heavy caliber shell penetrated the forecastle, but did not result in any damage which would impair the fighting efficiency of the vessel. Meanwhile, at 4.57, Admiral Beatty had turned away two points from the enemy, in order to increase the range in view of the light armor of his ships and to withdraw as rapidly as possible from the all too effective fire of the German guns. Two minutes later Admiral Hipper made a simultaneous change of course of one point away from enemy, bringing ships into line of bearing in order to hinder the enemy in spotting on. But neither the small changes in course, nor the last change of two points could throw the Germans off their targets. On the contrary, the battle raged with greater intensity with every minute, and soon the German gunnery reached its maximum effectiveness. The four-gun salvos of the individual German cruisers now followed each other at 20-second intervals, and threw up such columns of water around the enemy ships that the latter literally appeared to be steaming through a series of fountains. On the *Princess Royal* the after turret was put out of action by a heavy caliber shot, while another penetrated the upper deck in the wake of the middle turret.

At 5 p. m. the *Lion* received a hit which might easily have proved fatal. This heavy caliber shell struck the turret located between the two after smokestacks, knocked off a part of the turret roof, then exploded over the left gun and ignited the powder charges behind the guns and in the hoists. The turret's crew was killed, with the exception of two men. The mortally wounded turret officer, however, ordered the doors closed to the magazines and same to be flooded in sufficient time to save them. The flames, which then spread rapidly throughout the entire turret and handling room, were not able to ignite the numerous charges of powder stored in the magazines and to this they owed the fact that the British flagship did not meet the same fate as the *Indefatigable*, the rear ship of the line. This ship had been under fire from the *Von der Tann* for only about 15 minutes when at 5.03 the latter vessel observed that the British battle cruiser disappeared after two severe explosions in the middle and after parts of the ship, which sent up clouds of smoke over twice the height of the masts. As determined from observations on the *New Zealand*, the next ship in the line, the *Indefatigable* seemed to be hit near the stern by two or three shells of the same salvo. Smoke poured out of the afterpart of the vessel without any flames being seen; and, while the ship failed to follow in the wake of the ship ahead in turning to port, shortly after began to sink by the stern. Immediately thereafter two further shots struck the ship, one in the forecastle and one in the forward turret. Even this time there was no evidence of either fire, flame, or smoke. The shell had pierced the armor without premature explosion and penetrated the hull of the ship; only 30 seconds later was the tremendous effect of these shell apparent.

Beginning from forward, flames and smoke burst through the hull, then an explosion followed, which lifted parts of the wreckage as high as 60 meters in the air. The damaged cruiser listed far over to port and capsized, taking with her 57 officers and 960 men. (Two survivors of this vessel were later picked up by the German destroyer *S-68*.) [Note B, fig. 21.] Fifty-two 32 cm. shell and 38 15-cm. shell fired by the *Von der Tann* at ranges from 16,200 to 12,300 meters had sufficed to bring about this result. With "change of target to the left," the *Von der Tann* then shifted her fire to the fifth ship, the *New Zealand*, at which 52 heavy caliber shell were fired up to the time when it became necessary to make another change of target in the further progress of the action. On the sinking of the *Indefatigable*, the *New Zealand* also ceased fire on her previous target and opened on the *Von der Tann*. The nervous tension on both sides, the deafening thunder of the heavy artillery, the shriek of shell passing over the ships, and the iron discipline, all contributed to focus the attention of the personnel on their prescribed duties, so that few even noticed the sinking of the *Indefati-*

jaote. In particular, on board the *Lion* they had enough to do to look out for themselves, since between 5.03 and 5.07 not less than six shots fired by the *Lutzow* struck the ship one after the other, starting numerous fires and causing a great number of casualties among the crew. From observations on the *Lutzow*, it appeared at this time as though the British flagship listed 10° to starboard and sheered out of the line, disappearing behind the other ships enveloped in smoke. From the other German ships in the line, the effectiveness of their gunfire was unmistakable, while observations of the hits showed clearly the penetrating power and explosive force of the shell. At times the enemy fire ceased entirely, and even the tactical formation of the English line seemed somewhat disorderly.

The reason for this lay in two different circumstances, which are set forth in British accounts. In the first place, the smoke from the leading ships as well as the five destroyers which were steaming toward the head of the column between the battle lines, was particularly detrimental to visibility, with the prevailing northwesterly winds, so that Admiral Beatty, at 5.06, had turned out one point farther to starboard. At the same time, the line was alarmed by messages from several ships, reporting approaching torpedo tracks. These torpedoes had been fired by the *Moltke* between 5.04 and 5.08 at ranges of from 10,500 to 9,500 meters with angles on her own bow of 45° to 55°. This was the only ship in the German line which deemed the time propitious for making use of the torpedoes—in which weapon the German cruisers were superior to the British—and had fired four shots at the *Queen Mary*, the third ship in line. At 5.11 the track of a torpedo was sighted close under the stern of the *Lion*, a second passed under the *Queen Mary*, while a third was observed by the destroyer *Landrail* to pass through the line between the *Tiger* and *Princess Royal*. Strange to say, the impression was created on both the *Lion* and the *Princess Royal* that the torpedoes sighted had been fired from the unengaged side, and could therefore only have been fired by submarines. Admiral Beatty was further strengthened in this erroneous assumption by the fact that the *Landrail*, which at the time was steaming abeam of *Lion* thought to have sighted a submarine periscope, shortly before the torpedoes were observed, while at the same time the light cruiser *Nottingham*, which was somewhat farther ahead of the line, reported a second submarine to starboard. Admiral Beatty therefore firmly believed, at the time, that he was passing through a line of German submarines; and, while up to then he had found the smoke from the destroyers *Landrail* and *Lydiard*, which were on the unengaged side, most disturbing, he was now thankful for the protection these could afford his ships, as an antisubmarine screen.

Whether or not these reports of torpedo tracks which so disturbed the British line were due to the torpedoes fired from the *Moltke* or were simply a false alarm is difficult to determine. With regard to the time the torpedoes were fired and the reports of their being sighted, the distance appears too great and the time interval too short for these to have reached the target. Even then, two of the torpedoes, after passing the enemy line, would have had to describe a curve at the end of their run and so create the impression that they had been fired from the unengaged side. In particular, the fact that these torpedoes might be responsible for the sinking of the *Queen Mary* seems highly improbable.

The impression created on the German flagship from the start was that the enemy was striving to increase the range, so that at 5 p. m., Admiral Hipper was forced to change course from SE. by S. to SSE. and to S. by E. with constantly increasing speed, in order not to draw out of range. When, shortly after the sinking of the *Indefatigable*, a new change of course was observed on the part of the enemy, Admiral Hipper, not caring to lose the superiority in fire which he had just obtained, turned to course S. by W. at 5.10 in order to approach at a sharper angle. [Fig. 21. It must be remembered that the German courses are magnetic. S. by W. (magnetic) is actually 177° (true), approximately that shown in fig. 21.] This new evolution, however, brought him within the danger zone of enemy torpedoes, and at 5.11 a torpedo fired at a sharp angle described a circle at the end of its run directly ahead of the *Moltke*, while a second torpedo passed close astern. Further, this approach to the British line brought the German cruisers well within gun range of the Fifth Battle Squadron and thus threw the balance of the British numerical superiority into the scale.

At 4.57 this squadron was still some 7 miles astern of the British battle cruisers, and the latter were shrouded in smoke shortly after the opening of the engagement, so that the German forces which were firing at them could not be distinguished. Further, the Fifth Battle Squadron had received no signal directing it to join in the engagement. Rear Admiral Evan Thomas, therefore, advanced farther to the eastward and shortly sighted the faint outlines of three light cruisers on southerly course at a great distance about four points on the port bow. These were the ships of Scouting Division II, which, owing to the rapid development of the action, had not yet been enabled to reach their prescribed station at the head of the line and were at that time about 7 miles astern. At the same time, the commander of Scouting Division II, Rear Admiral Boedicker, sighted five masts on the western horizon, while shortly thereafter two stacks were made out behind each mast. From this he assumed the vessels to be five ships of the Second Battle Squadron

and reported them as such by radio. Only when a second mast was distinguished on each ship was he able to recognize them as four ships of the *Queen Elizabeth* class. The newest, strongest, and fastest battleships of the British fleet had appeared on the scene of action. Hardly had these ships been made out when the first 38-cm. salvo struck near the *Frankfurt*, *Elbing*, and *Pillau* at a range of 17,000 meters, forcing these vessels to make a simultaneous change of course to the eastward and retreat behind a smoke screen. In this maneuver, they were supported by one of the five boats of the Twelfth Half Flotilla, the *G-37*, Lieutenant Commander von Trotha, which had remained far astern. [Note E, fig. 20.]

Soon thereafter a better target was offered the Fifth Battle Squadron. While Rear Admiral Evan Thomas was pursuing the light cruisers to the eastward, he sighted the German battle cruisers to the southward at 5.05 and discovered shortly after that Admiral Beatty had changed from his original battle course farther toward the southward. Thus opportunity was offered for the Fifth Battle Squadron to reduce the distance to the battle cruisers, which had by that time increased to about 8 miles, and to support the hard-pressed leader of the latter as quickly as possible. Admiral Evan Thomas therefore swung into the wake of the battle cruisers, and, as soon as steady on the new course, the *Barham*, in the lead, opened fire on the rear ship of the German line (*Von der Tann*) at an estimated range of 17,400 meters at 5.06 p. m. In this the leader was soon joined by the *Valiant*, *Warspite*, and *Malaya*, which concentrated by pairs on the two rear ships *Moltke* and *Von der Tann*. As the *Hydra* grew new heads for each one cut off, so the *Indefatigable* was hardly sunk before four new and powerful opponents appeared in its place. Fortunately, however, the German ships at that time were so clouded in smoke and mist that at the great range of the Fifth Battle Squadron hardly more than two ships at a time could be made out from the latter vessels. Frequently, the flash of gunfire from the German ships was the only visible indication of their location. Also, the destroyer flotillas of the Fifth Battle Squadron made the mistake of attempting to steam up to position between the lines of combatants, whereby the smoke from their stacks further obscured the field of vision. The fire from the batteries of the four *Queen Elizabeths*, which were equipped with the most modern firing directors, proved very effective, particularly since the German ships were each engaged with the opposite ships in the battle cruiser formation and had no guns available to return this fire. Soon thereafter the rear German ships were smothered in a veritable barrage of 38-cm. (15-inch) shell, in which the well-bunched full salvos struck all around at very short

intervals. The shell striking in the immediate vicinity of the ships' sides caused the hulls to vibrate and rock, and early in the course of the action the *Von der Tann* was struck well toward the stern by a heavy-caliber shell fired from the *Barham*. The heavy impact of this shot at the extreme end of the ship started the whole hull in longitudinal vibrations like a tuning fork. The shell penetrated the joint between two armor plates under water, detonated, and forced pieces of the armor through several decks. The steering engine ran hot, the rudder compartment was flooded; but the worst catastrophe, a breakdown of the steering apparatus—such as occurred with the *Blucher* at the Dogger Bank action and delivered the ship up to the pursuing battleship—was avoided. The rudder continued to function after a short interval, the bulkhead of the after machinery space was shored up, and finally only 600 tons of water remained in the ship after counterflooding had reduced the drag astern to 2° with an increase in draft to 10 meters.

At 5.16 after numerous straddling salvos, the *Moltke* was also hit. A 38-cm. shell penetrated a coal bunker, demolishing the hoist of a 15-cm. (6-inch) gun, while the flames of the explosion wounded the crew supplying ammunition: then the casemate deck near the gun was pierced, putting both gun and crew out of action. For a while thereafter these two ships were able to avoid the too well-bunched salvos by means of small changes in course and speed regulated with regard to the enemy fire-control system.

Meanwhile, the intensity of the action between the cruisers had gradually fallen off since 5.06 p. m., with increasing range, in spite of all efforts of Admiral Hipper to maintain close contact with the enemy. Spotting became more and more difficult for both sides, except when one's own salvos struck at the instant the enemy salvo blazed out; according to English accounts, the German salvos lay mostly short at this time. On the other hand, enemy "shorts" threw up tremendous splashes near the German ships, thus considerably restricting the view of the enemy. While better spotting could have been done from higher up in the masts, the German ships, contrary to the British system, were at that time not equipped to control the fire from these elevated stations. As the range increased to over 18,000 meters, on the German ships the point of aim was shifted from the water line to the upper edge of the stacks, and finally to the fighting tops of the enemy ships, but even this did not avail for long, and fire had to be ceased entirely for a time. Also at this time the fire of the British ships weakened considerably, since they, as well as the Germans, had to avoid wasting the limited supply of ammunition under these unfavorable conditions for spotting and at the long range. Even at 5.10 p. m. the *Tiger* had great

difficulty in holding the target, since the *Regensburg*, which was in position at the head of the German line, was frequently counted in as one of the battle cruisers. [A most interesting fact.] Thus, the *Tiger*, owing to this error, from then on fired on the third ship (*Seydlitz*), instead of the fourth ship of the German line (*Moltke*). Periodically, some of the English ships had to cease fire entirely. When, however, Admiral Beatty saw that the Fifth Battle Squadron had joined the action, he sought to close the range again with his battle cruisers, in order to bring pressure on the head of the German line at the same time the enemy's rear was under fire.

At 5.12 he therefore turned two points, and at 5.15 two points farther toward the enemy. Since Admiral Hipper had held his course S. by W., and had only made a small change to column from line of bearing to bring his rear farther out of range of the fire from the Fifth Battle Squadron, both cruiser forces began to approach each other very rapidly and soon the artillery duel was renewed in intensity. Again the *Lion* lay in the midst of heavy fire from the Germans, received several hits, and for a time was so enveloped in the smoke of the fires which were started that she was scarcely visible to the ships astern of the *Lutzow*. Therefore, the *Derfflinger*, now mistaking the *Queen Mary* for the second ship in the British line, shifted her fire to the latter at 5.16. At 5.17 a shot from the *Queen Mary* put one of the 15-cm. (6-inch) casemate guns of the *Seydlitz* out of action. At 5.20 a shell penetrated the barbette of the forward turret of the *Von der Tann*. The turret was put out of action and jammed. The magazine was flooded, but the explosive effect as well as the danger from gas and smoke of all these shells was found to be very small. Apparently, the shell had splintered on impact, as was observed in the case of many of the enemy shell. Of the turret's crew, only a few, including the turret officer, were slightly wounded by the flames. Three minutes later, a third shell pierced the armored gun deck, striking between the barbette and the roller path of the after turret, killing six men. This turret, with flooded magazines, could only be made ready for action again after clearing away the wreckage and springing into place the bent deck plates. The damaged air ducts soon filled both steering engine compartments with smoke and gas, causing them to be abandoned for about 20 minutes; the rudder operating meanwhile without derangement. Parts of the torn torpedo net could be cleared before they came foul of the propellers, a casualty which would have rendered the ship helpless. At the same time, the first casualty to the radio occurred, the heavy shock of the hits breaking the wires of the main antenna. Fortunately, the ship was so enveloped in smoke from the last shot striking the after turret that

the *New Zealand*, which was only hit once, shifted fire from the *Von der Tann* to the *Moltke*.

At 5.26 p. m. this ship was also struck near the stern. The protective bunker and water-tight bulkheads were pierced, but the torpedo bulkhead held, keeping the water away from the vital parts of the ship. Immediately thereafter, at 5.27, a further shot struck the side armor at the water line, leaving a hole about 0.5 meter in diameter, then exploded in a coal bunker, pierced the gun deck, but did not penetrate the armored deck. While these events were taking place at the rear of the line, the range had fallen rapidly from 18,400 to 13,200 meters and now the German shells again rained like a hailstorm on the British battle cruisers. Although Admiral Beatty immediately turned away two points, the *Princess Royal* was struck at 5.26 by a shell from the *Lutzow*. At the same time, the *New Zealand* and the *Tiger* were each struck once, and in particular the *Queen Mary*, already hit twice, began to suffer under the concentrated fire of the *Seydlitz* and *Derfflinger*. At 5.26, while the *Seydlitz* was firing at this vessel at a range of 13,500 meters and the *Derfflinger* at 13,200 meters, the leading German ships suddenly saw the masts and smokestacks of the *Queen Mary* collapse, and smoke and flames from the hull poured to a height of 700 meters, in which the *Tiger* and *New Zealand* entirely disappeared.

As observed on board the *Tiger* and *New Zealand*, this ship was hit simultaneously by three shots of a four-gun salvo. It appeared from the splinters and the dull red heating on impact almost as though these shells had not penetrated (which must have been the case), when two further shells struck the ship. Even in this case, the first results appeared like small puffs of smoke shooting out through the holes made by the shell, but this was followed by a tremendous dull red flame with heavy black smoke from the middle of the hull as though the ship had split wide open. A similar sight was noticed in the fore part of the vessel, the battle cruiser broke together in the middle, while the turret roofs were thrown 30 meters in the air and the hull disappeared under water with the exception of the stern and the still revolving propellers. It was only with the greatest difficulty that the *Tiger*, which was following in the wake of this ship at a distance of 450 meters (500 yards) was able to sheer out to port to avoid the wreck. Passing this abeam at a distance of only a few meters burning wreckage was thrown on the decks of that cruiser, while clouds of poisonous gas fumes were drawn into the ventilating system and filled the aftercompartments. The afterpart of the *Queen Mary*, from stack to stern, was still above water as the *New Zealand*, after sheering out to starboard, passed abeam at a distance of 150 meters. Now, however, this floating wreckage capsized with a final explosion and disappeared

under the waves. Fifty-seven officers and one thousand two hundred and nine men were lost with this ship. Six men were picked up by the destroyers *Laurel* and *Petard*, while two men were rescued by the German destroyer *V-28*. All that remained of the *Queen Mary* was a large cloud of smoke which spread out like a gigantic pine cone and for some time obstructed the clear view of the German ships from the rear of the British line. *Tiger* and *New Zealand* were forced to go to reserve speed to close this opening and take proper distance from the *Lion* and *Princess Royal*.

With the superiority of fire which the German ships at the head of the column obtained at that time, it is understandable how they received but few hits in this phase of the action. But the rear ships of the line, *Moltke* and *Von der Tann*, were more and more endangered by the fire from the Fifth Battle Squadron. These were practically not under fire at all, although at 5.18 the *Von der Tann*, as the only one of the German cruisers, opened on the *Barham*. At 5.23 a hit was made on the latter, but after firing 24 shots at from 15,500 to 17,000 meters, the German cruiser was forced to shift again to its previous target, the *New Zealand*, after both center turrets had been put out of action and the target had shifted, bearing unfavorably. Now occurred on the *Von der Tann* another severe casualty, which was not due to the enemy. The recoil cylinders of the hot guns in the second turret failed, so that from now on, the cruiser could fire only two guns of her main battery.

With the Fifth Battle Squadron joining the action and the sinking of the *Queen Mary*, the artillery duel had reached an intensity which could hardly be exceeded. At the same time, with the gradual decrease in the range between the two battle lines, the time was approaching when it would be possible to bring the destroyers into action. On account of the development of the engagement on southerly courses, each side had succeeded in bringing only a part of their light forces into position for attack at the head of the line, while the rest of these forces were steaming up to take station. In spite of that, Admiral Beatty, at 5.09, or only a few minutes after the loss of the *Indefatigable*, had ordered the attack of the eight boats of the Thirteenth Flotilla and the four boats of the Ninth and Tenth Flotillas, which were leading, in order to relieve his hard-pressed ships. On account of the damage to the radio installation on the *Lion*, it was 5.15 before this signal could be relayed to the *Princess Royal*, and even then, five minutes more elapsed before the leading group of the Thirteenth Flotilla—which was commanded by Capt. J. U. Farie in the light cruiser *Champion*—could reach a position to attack with the destroyers *Nestor*, *Nicator*, *Nomad*, *Narborough*, and *Pelican* under Commander Bingham. At the time, the

German line of battle cruisers bore northeast distant about 8 miles. These destroyers were followed by a second group, *Obdurate*, *Nerissa*, and *Termagent*, while of the third group of destroyers, *Narborough*, *Pelican*, *Petard*, and *Turbulent*, the last two were forced out by the light cruiser *Nottingham* and could only pass through the line, to attack some time later, followed by the destroyers *Moorsom* and *Morris*. [Figs. 22 and 23]

On the German side at this time only Flotilla IX, under Commander Goehle, had reached position ahead of the line of battle cruisers, and on the close approach of the latter to the enemy line in order to gain a decision these boats took formation for immediate attack. At the same time Commodore Heinrich, second leader of destroyers, had approached in the light cruiser *Regensburg* and ordered the full force to attack when range-finder reading showed the range of the enemy forces to have decreased to 10,000 meters. Before the *Regensburg* had hoisted the red-checkered "Z" as a signal to attack, Commander Goehle had reached the same decision as a result of the rapidly decreasing range and with the group V-28, V-26, and S-52 (Lieutenant Commanders Lenssen, Koehler, and Ehrentraut) had crossed the line ahead of the *Lutzow* and headed for the center of the enemy line. The leader of the Seventeenth Half Flotilla, Lieutenant Commander Ehrhardt, was followed by the boats V-27, S-36, and S-51 (Lieutenant Commanders Buddecke, Franz Fischer, and Dette), then the group V-29 and S-35 (Lieutenant Commanders Steinbrinck and Ihn), while as fourth group followed the chief of the Eighteenth Half Flotilla, Commander Werner Tillesen, with the V-30, S-34, and S-33 (Lieut. Ernst Wolf and Lieutenant Commanders Andersen and von Münch). Scarcely were the German boats clear of the line when they were approached from the southward by the English destroyers, which were steaming to attack the battle cruisers. While the artillery duel continued between the main batteries of the battle cruiser forces the secondary batteries opened on the destroyers. At the same time the light forces came together in a running fight between the lines in a sea which was cut up with the splashes of shell, and soon this action developed into numerous individual engagements, where both gunfire and torpedoes were used at close quarters. The sequence and details of these fights can hardly be enumerated. At 5.33 the *Nomad*, the second boat of the group *Nestor*, was hit in a boiler room by the S-51 (Dette) of the Ehrhardt group, and shortly after was hit by a torpedo from the S-52, the third boat of the group Goehle. [The torpedo hit is not mentioned in English accounts.] Immediately thereafter the *Petard*, following the *Turbulent* of the *Nestor* group, fired a torpedo at the V-29, leader of the Steinbrinck group;

but even in sinking this boat was able to fire four torpedoes at the British line.

Owing to these fights with the larger and faster British destroyers, the other boats of Flotilla IX were unable to approach the enemy ships closer than 7,000 to 8,000 meters. From 5.34 to 5.35 p. m. 10 torpedoes were fired, particularly against the second, third, and fourth ships. At 5.34 the *Lutzow* also fired a torpedo against the third ship in the British line, while the enemy battle cruisers and battleships made simultaneous changes of course of two points after the *Queen Mary* had blown up. That the loss of the latter ship may be attributed partly to the torpedoes fired by Flotilla IX appears, according to English observations, to be extremely doubtful. But, even if this was not the case, the attack had the result that the British fire against the German cruisers was weakened to a large extent. Immediately after the attack, the boats on returning were forced to break through the enemy destroyer groups with a resultant lively artillery duel. Thus, at 5.34 the V-27, leader of the Ehrhardt group, was hit twice in the starboard side of the machinery space, cutting the main steam line, so that the boat had to be blown up, owing to the approach of the four *Queen Elizabeths*. In the midst of enemy fire, the V-26 (Hans Koehler) went alongside and rescued the entire crew of the V-27, among them two severely wounded men, sunk the latter boat by gun fire, avoided a torpedo fired by another destroyer, and rescued the greater part of the crew of the V-29 (Steinbrinck). [A particularly gallant exploit. The Germans throughout the battle paid great attention to rescuing the crews of their disabled ships.] The rest of the crew were saved by the S-35 (Lieutenant Commander Ihn), which then returned with the other boats to the *Regensburg*, the flotilla otherwise having sustained only minor casualties. This light cruiser, the only one enabled to take station ahead of Scouting Division I, had advanced to the SW. to cover the attack and the retreat of Flotilla IX, and followed by the G-101, G-102, G-103, and G-104 of Flotilla II, had contributed largely to the relief of Flotilla IX by their effective gunfire and thereby assisted in the saving of the crews of the V-27 and V-29. An attempt to bring the G-103 (Lieut. Commander Fritz Spiess) and G-104 (Lieut. Commander von Bartenwerffer) in position for attack on the enemy line failed, since the latter now turned away to the northward.

The English destroyer attack could not be fully developed on account of the German counterattack. The *Obdurate*, *Narborough*, *Pelican*, *Moorsoom*, and *Morris* were forced out, the *Obdurate* receiving two hits. Meanwhile, the *Nestor* and *Nicator* had approached the German line to 4,500 and 5,500 meters and each had

fired two torpedoes against the *Lutzow*; one fired by the last-named destroyer broached after leaving the tube.

The danger from this attack was promptly recognized by Admiral Hipper. After the course of the battle cruisers had been changed to SE. at 5.28, a simultaneous change of course was made to ESE. during the destroyer attack, and finally at 5.36, course was further changed to east. Therefore, the torpedoes fired by the *Nestor* and *Nicator* passed the German line without effect. But at 5.28 Admiral Hipper changed course again to SSE., and at 5.41 he went back to the original course of S. by W. in order to close with the enemy once more. In spite of all his success, however, the position of the German cruisers would soon have become critical, since they were fighting against a superiority of two to one after 5.11, even after the *Queen Mary* and *Indefatigable* had been sunk. On the German battle cruisers, such fears had scarcely been formulated when smoke was sighted to the southward, and messages were sent by voice tube to all battle stations, which could hardly have caused more rejoicing than a similar message on December 16, 1914, and January 24, 1915. This message was, "Our own main body in sight."

At the same time, the movements of the enemy showed that they too had noticed this new appearance on the scene of action. The German cruisers had just turned away toward the east from the destroyer attack when Commodore Goodenough, on board the *Southampton*, sighted the mast of a light cruiser with four stacks, at 5.30. At that time the *Southampton* was leading the Second Light Cruiser Squadron, and about 2 miles ahead on the port side of the *Lion*. The light cruiser, which was sighted, was the *Rostock*, which was steaming ahead of the German main body. Three minutes later, the *Southampton* sent the surprising message that battle-ships were sighted to the southwest. Approaching these at high speed, that vessel was soon able to make out the ships of the German battle fleet, an appearance which at first seemed unbelievable to the British. It was a moment of greatest importance when the *Southampton*, at 5.38 p. m., sent the following very urgent message with priority to the commander in chief and commander battle cruiser fleet. "Have sighted enemy battle fleet to southeast. Course of enemy is north. My position is 56° 34' N., 6° 20' E." [Note J, fig. 23.]

This signal was all the more surprising to Admiral Beatty as, up to that time, he was firmly convinced that Admiral Scheer had not yet left the Jade. But any doubts which he may have had as to the accuracy of this report were dispelled by a message sent at the same time by the *Champion*, which had advanced to the southeast to cover the destroyer attack: "Course of enemy battle fleet is ENE.,

formation column. Dreadnaughts leading. Middle of enemy line bears SE. My position is $56^{\circ} 51' \text{ N.}$, $5^{\circ} 46' \text{ E.}$ "

This position given by the *Champion* was in error, owing to a mistake in reckoning, and was really 12 miles farther south, while the true position of the *Southampton* was $13\frac{1}{4}$ miles to the westward of the position reported. The errors made no difference to Admiral Beatty, who had both cruisers in sight, but were to prove of the greatest importance to Admiral Jellicoe, as will be shown latter.

What was to be done? Admiral Beatty, who had sought to increase the range of the battle cruisers since 5.30, while the *Lion* engaged the *Lutzow*; the *Princess Royal*, the *Derfflinger*; the *Tiger*, the *Seydlitz*; and *New Zealand*, the *Moltke*, turned immediately to port in the direction of the newly reported enemy. At 5.40 he had visible evidence. Twelve miles to the southeast, a battleship appeared, and then, accompanied by a swarm of light cruisers and destroyers, was seen what appeared to be an endless line of battleships. This appearance of strength, which in the whole course of the war had not been experienced and had been held to be impossible, robbed Admiral Beatty of the hope of turning the cruiser action to his favor, even after the severe losses already sustained. He had no choice. At 5.43 the signal was hoisted on the *Lion*, recalling the destroyers and ordering a turn to the reverse course for the battle cruisers and battleships. Immediately thereafter, Admiral Beatty turned the former to course NW. and at 5.46 changed with the battle cruisers to course north, in order to rejoin his own main body by the shortest route.

For this purpose, the relative positions of the flagships *Lion* and *Iron Duke* were of the greatest importance. At 5.45, Admiral Beatty therefore sent the following radio to the commander in chief through the *Princess Royal*, viz: "Have sighted enemy battle fleet bearing SE. My position $56^{\circ} 36' \text{ N.}$, $6^{\circ} 04' \text{ E.}$, 5.45 p. m." This message was correctly transmitted by the *Princess Royal* and properly received by some ships of the Grand Fleet, but in the shape in which it reached the *Iron Duke*, it read, "26 to 30 battleships, apparently enemy, bearing SSE., course SE." (The *Iron Duke* seems not to have received the message direct, but relayed from the *Benbow*.) Only the position of the *Lion* was correctly received, and thus the commander in chief was informed of the position the *Lion* thought she was in at 5.45 p. m. A further question was, on what basis was the *Lion* to judge the position of the Grand Fleet. According to the latest reported position of the commander in chief, this force was at 4.15 p. m. in $57^{\circ} 50' \text{ N.}$, $4^{\circ} 15' \text{ E.}$, on course SE. by S., speed 19 knots. If this were correct, the Grand Fleet would

have been at 5.45, in $57^{\circ} 30' \text{ N.}$, $4^{\circ} 56.5' \text{ E.}$; or, 66 miles NNW. of the *Lion*. In order to reach them, the course of the cruisers should have been $\text{N. } 14^{\circ} \text{ W.}$ As the course was chosen farther to the northward, this must be attributed to the fact that Admiral Beatty did not wish to lose contact with the enemy and wished further to avail himself of the cover of the Thirteenth Destroyer Flotilla which was then returning from the attack. (Narrative of the Battle of Jutland, p. 25.)

This movement of the battle cruisers was followed immediately by the destroyer flotillas and the First and Third Light Cruiser Squadrons, in order to take station at the head of the line. Only Commodore Goodenough, with the light cruisers *Southampton*, *Nottingham*, *Birmingham*, and *Dublin* of the Second Light Cruiser Squadron, pushed on the southwest at 25 knots, in order to determine the course, speed and exact composition of the enemy force sighted, and, if possible, to reach a position favorable for torpedo attack. But only the *Nottingham* was able to fire a torpedo at the German line, at 5.40, at a range of 14,000 meters, whereupon the Second Light Cruiser Squadron was forced, at 5.48, to turn off at a distance of 11,800 meters to withdraw from the rapid fire of the enemy ships.

As early as 5.30 p. m., ships in action were sighted from the *König*, the leading battleship of the German battle fleet [the terms "battle fleet" and "main body" are both used by the author to describe the forces under Admiral Scheer's immediate command as distinct from those under Admiral Hipper], and soon thereafter the situation was cleared to the extent that on the starboard bow were sighted the ships of the Scouting Division I, while to port were two columns of enemy ships, approaching the German main body on southerly course. Of these, the easterly column were recognized as battle cruisers engaging the German battle cruisers, while the other column advancing to the southwest appeared to be light cruisers of the *Chatham* class. Between the two lines of battle cruisers, the German destroyer flotillas were returning from attack and were engaged with the British destroyers. Since Admiral Hipper was at that time engaging the enemy battle cruisers, he was not in a position to make a report on the enemy losses and the condition of his own ships; therefore Admiral Scheer, as well as Rear Admiral Behncke, commander of the leading Squadron III were forced to rely on their own observations for an estimate of the situation. From a radio message sent at 6.10 by the commander Scouting Division II, reporting the presence of only four enemy battle cruisers, it was apparent that the enemy forces had sustained severe losses. What at that time appeared to the commanders of the German battleships as an example of extraordinary courage—i. e., the approach of the

British battle cruisers to within gunfire range of the German main body—was in reality only the consequence of the complete surprise occasioned by the appearance on the scene of action of the German main body on the commander of the British battle cruiser fleet. It was evident that every effort must be made by the German forces to prevent the enemy from escaping unpunished from this dangerous position, in spite of his superior speed.

At 5.38 p. m. therefore, the German battle fleet increased speed from 15 to 17 knots, and shortly thereafter it was reported from the foretop of the *König* that the enemy capital ships appeared to be turning to a northerly course. At 5.45 the German battle fleet made a change of course of two points to port by divisions, in order to approach the enemy in seven columns. Soon thereafter it was clearly seen from the fleet flagship, which was leading Squadron I, that the enemy forces consisted of two groups of which the northerly group was composed of four *Queen Elizabeths*, while the southern group comprised four battle cruisers. The signal, "Fire distribution from the right, ship against ship," was followed at 5.46 by the signal from the fleet flagship to open fire. The head of the British column was just making the turn to the northward, when *Lion* was fired on by the *König*, *Princess Royal* by the *Grosser Kurfurst*, and *Tiger* by the *Markgraf*. The first shots of the *König* lay short of the *Lion*, on account of the extreme range (19,200 meters), even with maximum elevation of the guns, so that *König*, increasing to reserve speed, shifted after two salvos to the *Tiger*, which latter ship was under fire at various ranges from the *Markgraf*. At the same time the secondary batteries of the *König*, *Grosser Kurfurst*, and *Markgraf* fired for a short while on two enemy destroyers (*Nester* and *Nicator*) at ranges of from 12,000 to 8,000 meters. After a few salvos, one of these turned away, while the other remained in a helpless condition and sank shortly after. Also, the *Prinzregent* fired at one of the battle cruisers, but had to cease fire at 6.04, after eight salvos, since all shots were very short at that range (20,400 to 19,500 meters) and the enemy was barely visible. At 6.08 fire could again be opened under much more favorable conditions against a battle cruiser of the *Indefatigable* class (the *New Zealand*) and this was maintained at the rate of one salvo per minute, with apparently good effect. On the other hand, no other target offered at that time for the *Kaiser*, *Friedrich der Grosse*, and the ships of Squadron I, than the four ships of the Second Light Cruiser Squadron. The latter therefore lay for a time under the concentrated fire of 10 German battleships at ranges of from 13,000 to 19,000 meters, but the large number of splashes hindered the spotting to such an extent that most of these ships ceased fire after a few salvos. Only the *Ostfriesland* and *Nassau* continued the fire (6.10 to 6.15), but no

hits were made, as the enemy cruisers turned sharply to the northward and steering zigzag courses soon disappeared in the smoke.

In the effort to withdraw from the fire of the German battleships as rapidly as possible, it was not possible for Admiral Beatty to warn the Fifth Battle Squadron of the fact that the German main body had joined the engagement. Even the signal for the turn to the northward, which was hoisted on the *Lion* and intended also for the *Queen Elizabeths*, was not made out by the latter, as, at the time they were about eight miles astern. Therefore the Fifth Battle Squadron continued to engage the German battle cruisers on a southerly course. Admiral Evan Thomas had seen the battle cruisers turn to the north but could not understand the reason for this evolution and held it to be his duty to continue the action on the previous battle course. At 5.48 the leading ships of each detachment, *Lion* and *Barham*, were standing on opposite courses about four miles apart. Again the signal was hoisted on the *Lion*, "Fifth Battle Squadron alter course in succession 16 points to starboard," and the position of the German battle fleet was given. At the high speed with which the squadrons passed, however, Admiral Evan Thomas had already steamed into the lee of the battle cruisers, before the change of course could be effected. In passing, the 38-cm. guns of the *Queen Elizabeths* had to cease fire, since the battle cruisers covered their targets, and the latter ships were counted with great anxiety. The *Queen Mary* and *Indefatigable* were missing. Scarcely had the *Barham* passed the last ship of the battle cruisers when the German battle fleet was sighted in the southeast, approaching in three or four columns, and the ship found herself in the midst of an intense salvo fire. This was from the *Kronprinz* and *Kaiserin*, which at 5.50 had opened on the leading ship of the Fifth Battle Squadron at an initial range of 19,200 meters. This fire was effectively continued until the *Barham* had approached to within 18,600 meters and lay directly athwart the course of the German battleships, before turning to the northward at 5.58, in the wake of the battle cruisers.

Under this fire the *Barham* received two major caliber hits, of which the first destroyed the auxiliary radio station, while the second put the main radio out of action, thus preventing Admiral Evan Thomas from receiving further reports of the engagement and making an estimate of the situation difficult [fig. 24]. At the same time, these hits had resulted in a large number of compartments becoming filled with gases and smoke. Powder cases on the gun deck were ignited, splinters had penetrated into the lower part of the conning tower as well as into compartments under the armor deck, causing numerous casualties among officers and men. At

6 p. m. Commodore Goodenough, when about in line with the rear ship of the Fifth Battle Squadron, turned with the Second Light Cruiser Squadron to the northward at the same time. Thus the light cruisers, which were close in the lee of the battleships, were showered with splinters from the German shell. It was possible, however, for this force to avoid hits by means of clever zigzag steering, while at the same time the movements of the Fifth Battle Squadron were effectively screened. The fire of the *Kronprinz* and *Kaiserin* had aroused the impression amongst the English that the turning point of the Fifth Battle Squadron was under heavy fire, but the *Valiant* succeeded in turning in the wake of the *Barham* without being hit, and the *Warspite*, as third ship, was not less lucky, while the *Malaya* had previously made the turn and at 6 p. m. was under fire from the *Von der Tann*.

【This question of fire at a turning point in the target column is not a simple one. With a distance of 500 yards between ships and a target speed of 25 knots, fire would have to be shifted from ship to ship every 36 seconds. If fire is not so shifted, fire at a target, such as that offered by the Fifth Battle Squadron, is the most difficult imaginable because of the great change in the "rate of change" during a 16-point change of course by the target.】

Meanwhile Admiral Hipper had taken advantage of the interval of weakened fire from the enemy, while the British squadrons were passing each other, to turn in succession in a brilliant maneuver to a northerly course ahead of the German battle fleet at 5.50, steaming with reserve speed, with the *Lutzow* leading, to maintain contact with the enemy on this new battle course. In this evolution, however, he disregarded the danger which he had previously sought to avoid by a simultaneous change of course of his ships. At the time, all of the enemy destroyers had not carried out the recall signal which had been hoisted on the *Lion* since 5.43 p. m. Thus the destroyers *Petard* and *Turbulent* each fired three torpedoes at the second and third battle cruisers of Scouting Division I at 5.50, while this force was turning to the northward, and the *Nerissa* and *Ter-magant* fired their two torpedoes at the fifth ship. With this sudden turn to the northward, the German battle cruisers ran directly into the track of these torpedoes and only when it was too late to turn out were several torpedoes sighted by the *Seydlitz*; one of these was running on the surface, while two others were headed for the ship. Shortly thereafter, at 5.57, this ship was struck forward by one of the torpedoes. The bulkhead at frame 14 was penetrated and the forward station for electric auxiliaries was put out of action. The torpedo bulkhead held, so that the 28 and 15 cm.

magazines forward, as well as the broadside torpedo room remained in service. The ship took a slight list, which at this time was of no importance, while the full speed could be maintained.

Meanwhile Scouting Division II, under Rear Admiral Boedicker, with the Twelfth Half Flotilla (Lieutenant Commander Lahs), had sought to rejoin the battle cruisers and the *Wiesbaden*, which was accompanying them, after standing to the southward to escape the fire of the four *Queen Elizabeths*. [In fig. 23 the Twelfth and Fourth Half Flotillas are seen close on the port beam of Scouting Division I, with the Twelfth leading.] At 5.25 the enemy light cruisers [the First and Third Light Cruiser Squadrons in fig. 23], which had been pursued at the beginning of the action, came in sight again on bearing NNW., and at 5.35 the *G-37*, Lieut. Commander von Trotha, which had remained somewhat in rear, cleared the rear of Scouting Division II and proceeded to attack these forces, firing two torpedoes at a range of 9,000 meters. These were apparently ineffective. Scouting Division II quickly regained station and, together with the *Wiesbaden*, formed the screen ahead of the battle cruisers on the northerly course [fig. 24], while the destroyers between the battle cruisers and Battle Squadron III proceeded to attack. While the *Wiesbaden* was steaming up to take station ahead of Scouting Division I the commander of Flotilla VI, Commander Max Schultz, had observed the enemy battle cruiser squadrons turn to the northward, while to the eastward of these vessels appeared a group of battleships. As Flotilla VI had not received reports of the position of its own battle fleet, these were not recognized as enemy ships until later. At the moment of the turn of Scouting Division I to the northerly course, Commander Schultz realized that the fire of the battle cruisers would be considerably diminished, and decided to relieve the pressure on these ships by an attack against the enemy battle cruisers, with the Eleventh Half Flotilla, Lieut. Commander Wilhelm Rümman, which alone remained with him. [Flotilla VI was composed of the Eleventh and Twelfth Half Flotillas. For the attack of the Eleventh Half Flotilla see figs. 23 and 24] Each boat was to fire two torpedoes at the enemy ships. After an advance of 6,000 meters through the intense fire of the light cruisers and destroyers near the British line, he succeeded in reaching position from 8,000 to 9,000 meters from the enemy with the *G-41*, *V-44*, *S-49*, *V-32*, *G-87*, and *S-86*. (Lieut. Commanders Böhm, von Holleuffer, Baustaedt, Carl, Karstens, and Conrad Grimm.) In all, seven torpedoes were fired, the flotilla being hindered by the retiring boats of Flotilla IX, whereupon they turned to the eastward at full speed, and, passing between Scouting Division I and Battle Squadron III, rejoined the *Regensburg*.

Although the position attained was very favorable for torpedo fire, since the battle cruisers were just passing the Fifth Battle Squadron, no hits could be observed. According to British accounts, one torpedo passed astern and one ahead of the *Valiant* but no hits were made either on the battleships or battle cruisers.

At the same time that Flotilla VI was attacking, the *Nestor* and *Nicator* were making an attack on the German battle fleet. After firing two torpedoes at the German battle cruisers, these two boats had turned to the southward and when the German battle cruisers made the turn to the northward, were offered another favorable opportunity for torpedo attack. At that time Commander Bingham on the *Nestor* suddenly sighted to the southward the line of German battleships. This was the High Seas Fleet which was suspected of still being at the Jade. He promptly decided to use his last torpedoes against these ships, and, passing through the rapid fire of the *Regensburg* and the *Rostock*, which was steaming ahead of the battle fleet, he approached the German line under fire from the secondary batteries of the latter ships. At 3,200 meters the *Nestor* fired torpedoes against the first and second ships, while the *Nicator* fired at the same targets at a range of 2,700 meters. Then the *Nestor* turned away to the northward, having been hit in the forward boiler compartment. The *Nicator*, which was barely able to avoid a collision, could not fire her fourth torpedo and turned away to rejoin the other boats of the flotilla to the westward in compliance with the recall signal on the *Lion*.

Although it had been possible for the German Flotilla IX to save the crews of the *V-27* and *V-29*, the *Nomad* and *Nestor* had been left unable to maneuver near the sinking German boats, and abandoned by the English to their fate. But before they were completely destroyed by the fire of the *Rostock* and the rapidly approaching German battleships, they were able to fire their last torpedoes at the German line, even though they were ineffective. Then the survivors were rescued by German destroyers and were taken prisoner. Of the 21 torpedoes which were fired by the British destroyer flotillas in the course of this action, only one had reached the mark, and that one had not proven very effective. [Hits were made on both *V-29* and *Seydlitz*. In this particular attack there can be no doubt but that the British destroyers excelled the German, despite the disorganized character of their attack. The initiative of the British captains compensated for failures of their higher leaders. It is true that the British destroyers were much larger and more powerful than the German boats.] On the other hand, the boldly executed attack of the destroyers after the sinking of the *Queen Mary*, before the arrival of the German battle fleet, brought considerable relief to the British line, as the German battle

cruisers were forced to turn out at a critical moment, even if only for a short time.

Meanwhile, most of the German ships had attempted to hold on to the British ships with their guns, even when they were at the extreme range, in the hope of obtaining a few hits and inflicting at least some casualty before they could escape with their superior speed. Immediately after turning, therefore, the *Lutzow*, *Derfflinger*, *Seydlitz*, and *Moltke*, at 5.55, renewed their fire on the British battle cruisers, which since 5.48 were also under fire from the *König*, *Grosser Kurfürst*, *Markgraf*, and *Prinzregent*. As a result, *Lion* and *Tiger*, at 5.59, were again hit, and turned sharply to the westward, followed by the other two cruisers. Scarcely had the *Lion* returned to the northerly course at 6.01, when she was again struck by two shells at the same time. At various places new fires broke out, which could only be fought with the greatest difficulty, since the fire mains had been broken to a large extent by splinters. In particular, the fire in the turret, which was hit earlier in the action, broke out again with renewed intensity, setting fire to two powder cases and killing the entire handling-room crew, while the flames endangered the personnel on the upper decks. Soon thereafter the *Lion* passed the spot where the *Queen Mary* sank, and, barely escaping the same fate, turned with the other cruisers to a northwesterly course, withdrawing from the engagement while the Fifth Battle Squadron covered the retreat.

The destroyers *Onslow* and *Moresby*, which had been joined by the aircraft tender *Engadine* after the latter had left the First Battle Cruiser Squadron, had not noticed this new change of course on the part of their own battle cruisers and continued on course NNE., thus approaching the German line more than their own. Being eager to attack the German ships, which they had missed on account of being dispatched to the *Engadine*, they steamed to attack the German battle cruisers at 6 p. m. Before they could get within torpedo range, however, they were met by an intense torpedo defense fire from the hitherto invisible Scouting Division II, as well as from the battle cruisers which they were attacking, and were forced to turn away. In this movement the smoke from stacks so obstructed the British view of the enemy that the *Moresby* turned to the southward between the two lines. Therefore the destroyer was shortly in a good position for torpedo attack ahead of Battle Squadron III, and fired a torpedo at the third ship in the line (*Kronprinz*) at 7,500 meters, which, however, missed. Both destroyers then retired from the attack without having sustained any casualties.

Of the other destroyer flotillas, the First stood at that time with the *Fearless* near the battle cruisers, the Thirteenth with the *Champion* near the Fifth Battle Squadron, while the First and Third

Light Cruiser Squadrons were to starboard ahead of the line and the Second was astern to port.

As a result of torpedo-defense fire, the smoke from the stacks of the destroyers, the fires on the *Lion* and *Tiger*, the spray and clouds of smoke from the shell striking, such a mist existed between the heads of the columns that, especially from the British ships, the enemy was invisible. A short battle ensued between Scouting Division. II and the First Light Cruiser Squadron from 6.05 to 6.10 at ranges from 11,600 to 14,000, until the latter turned away; but the fire from the British battle cruisers became slower and slower, until the *Lion*, which was least hindered by smoke, owing to her position in the line, ceased fire at 6.12. This ship had suffered the most up to that time. On the southern course, she had sustained 10 major caliber hits alone, some of which were very severe, while the *Tiger*, although struck 16 times, had not sustained such severe damage to her armament. (Narrative of the Battle of Jutland, p. 24; Fighting at Jutland, p. 54.) None of the battle cruisers or battleships, which were being pursued, had sustained any casualties from the German gunfire which affected the speed or handling of the ships. At 6.10, Admiral Beatty was therefor so far out of effective range of the German guns that he could reduce speed to 24 knots and stand on course NNW. to join the Grand Fleet.

In vain Admiral Scheer sought with the utmost speed of his ships and, in particular, of Battle Squadron III, to remain on the heels of the enemy, and therefore turned the divisions two points farther to port at 5.59 on signal from the fleet flagship, in order to hold contact with the British battle cruisers on their course NNW. Only the *Markgraf* continued to fire on the *Tiger* with occasional interruptions after the change of course to NW., and since the enemy was continually drawing ahead, could finally only fire with the forward turret. Fire had to be ceased entirely at 6.25, when the range was 19,000 meters, in order not to endanger the ship ahead. On the other hand, the *Grosser Kurfurst* shifted at 6 from the *Princess Royal* to the *Valiant* with an initial range of 17,400 meters, while the *Konig* shifted from the *Tiger* to the *Barham*, but could only reach this vessel for five minutes with the forward turret and then shifted further to the *Valiant*. At 6.16 the *Grosser Kurfurst* was forced to cease fire against this ship on account of the extreme range [fig. 25].

Meanwhile the British battle cruisers had steamed so far out of the action that, although they were followed at the highest speed by Admiral Hipper, they were beyond the extreme range of the guns of the German battle cruisers. The latter were therefore forced to fire at the Fifth Battle Squadron, which was effectively covering the retirement of the battle cruisers, and in this manner came more and more to bear the brunt of the battle.

At this time the ships of the Fifth Battle Squadron stood out clearly against the golden western horizon, while the German ships were shrouded in the dusk to the eastward, and almost completely disappeared. Only when the sun broke through the cloud banks were the outlines of the German ships visible for a time, while the sun blinded the German gun pointers. Otherwise the German ships could only be located by the flash of their guns. At 6.11 the *Barham*, leading the squadron, received two further major caliber hits, but the farther the head of the column withdrew from the German lines, the more was the fire concentrated on the rear ship—the *Malaya*. Although at 6.27 the *Lutzow* was still firing on the *Barham*, *Derfflinger* on the *Valiant*, and *Seydlitz* on the *Warspite*, the *Von der Tann* had opened on the *Malaya* at 6 p. m. At 6.08 the *Kronprinz* had joined in the fire on the latter ship, followed at 6.10 by the *Kaiser*, and at 6.27 by the *Moltke*. Thus, according to reports from that ship, the *Malaya* lay under continually straddling salvos from 6.05 to 6.30 p. m. Six salvos per minute were usual, and at one time as many as nine salvos struck all around this hard-pressed vessel in quick succession. Although the ship sheered out to port, the Germans remained on the target, and at 6.20 a major-caliber hit at the water line caused a violent shock throughout the hull. Immediately thereafter the splinters of a shell broke the steam lead to the siren, and the rush of escaping steam made all communication with the forward spotting station impossible. At 6.27 a heavy shell struck the after turret and knocked off most of the turret roof. The *Malaya* was about to use the secondary battery to make a splash screen by firing short very near the ship in order to hinder enemy spotting, when two shells, striking one after the other, put the whole starboard 15-cm. (6-inch) battery out of action. Finally, at 6.35, when the guns of the *Malaya* could barely fire at extreme elevation, another major-caliber shell struck at the water line, so that from 6.20 to 6.35 the ship was hit five times with heavy shell. This ship suffered a loss of 63 killed and 68 wounded, while the *Barham* lost 26 killed and 46 wounded, most of the casualties occurring during this phase of the action. While large quantities of oil streamed out of the leaking and burning hull, the ship gradually listed to starboard, but could be kept from capsizing. A similar fate was escaped by the *Warspite* and *Valiant* by the fact that shortly after the opening of this phase of the action they sheered out to port and formed line of bearing in the lee of *Barham*, thus being protected from this fire. Up to 6.40 the ships of the Fifth Battle Squadron had received the following hits while on the northerly course: *Barham*, 4; *Valiant*, 0; *Warspite*, about 5; and *Malaya*, 7.

On the other hand, the fire of the Fifth Battle Squadron had not been entirely ineffective, although only in the first phase of this ac-

tion were they supported by the battle cruisers. The *Barham* and *Valiant* had been firing principally on the German battle cruisers, while the *Warspite* and *Malaya* directed their fire against the leading German battleships. At 6.09 the *Grosser Kurfurst* was struck in the water line, while similar hits were made at 6.10 on the *Markgraf*, at 6.13 on the *Lutzow*, and at 6.19 on the *Derfflinger*. All around these ships surging columns of water were thrown up by the shell while the decks were showered with splinters. Only the *Lutzow* sustained grave injuries from these hits. One shot destroyed both the main and auxiliary radio installations, so that hereafter the important methods of communication between the commander scouting forces and the commander in chief were restricted to searchlight signals. In this phase of the action the *Seydlitz* suffered severe casualties to her battle equipment. Between 6.06 and 6.08 this ship was struck twice near the bow, and at 6.10 a major-caliber shell broke through the protective bulkhead of the second turret and put the right gun out of action. Another shell struck the third turret, which was already jammed, and started a fire among the powder charges similar to that on the *Lion*. The fourth and fifth port 15-cm. guns were put out of action by direct hits, and finally another shell rendered the right gun of the fifth turret unserviceable. A hit on the roof of No. 4 turret did not penetrate. [The Fifth Battle Squadron, unsupported by Beatty, gave a splendid account of themselves in this critical period of the battle. The work of this squadron was probably the most effective of any performed by the Grand Fleet at Jutland.]

On the contrary, the *Moltke* and *Von der Tann* were not hit in this phase of the action, but another casualty took place on the latter ship, which was the second of this nature. The one remaining turret, which was able to fire, was put out of action by the fact that the guns would not return to battery after firing and remained in the "run-in" position. In spite of the loss of the entire main battery, the commanding officer, Captain Zenker, decided to remain in formation in order that his ship should be counted in the enemy fire distribution, and the enemy thereby hindered from concentrating on one of the other ships. Since, however, he was not compelled to hold a constant course to assist the fire of the battery, he was able to avoid further hits by maneuvering his ship; and, although considerably reduced in fighting efficiency, was able to maintain station with Scouting Division I. [A most inspiring example.]

Meanwhile the visibility conditions which had previously been so favorable for the Germans were now reversed. The enemy, who were at this time directly in line with the sinking sun, could barely be made out as the sun shone beneath the clouds. Spotting became impossible, and for a while the German battle cruisers were acting

only as targets, while the distance between them and the Battle Fleet, as well as between the fourth and fifth divisions of the latter, continued to increase, owing to their determined pursuit of the enemy at the utmost speed. The decrease in the visibility conditions and the consequent weakening of the German fire was promptly utilized by Admiral Beatty to gradually envelop the head of the German column by steering north and northeasterly courses with his light forces. When, therefore, Admiral Scheer, at 6.21, ordered Admiral Hipper to continue the pursuit with his forces in order not to let the enemy get out of range, the commander of the scouting forces was just about to report this enveloping movement of the enemy forces, which naturally could not be observed from the fleet flagship far astern.

This message could not be sent because just at that moment the radio installation of the *Lutzow* was put out of action. There remained nothing for Admiral Hipper to do but carry out these orders, and at 6.27 he therefore turned to the northwest with his battle cruisers in spite of the unfavorable conditions in order to make another approach to the enemy at full speed. This movement, however, only facilitated the enemy's enveloping movement, and consequently at 6.39 Admiral Hipper was forced to return to course NE. [Fig. 26 This figure corresponds very closely with the official German charts.] Even Admiral Behncke, on board the *König*, had meanwhile observed that the enemy forces, after forming line of bearing, had gradually hauled around to the northward. With the fifth division, he, therefore, gradually followed this change of course to starboard, while the other divisions performed a similar evolution. Consequently the Battle Fleet was soon in a long-drawn-out column about 7 miles astern of Admiral Hipper's forces, while ahead and to port the squadrons and flotillas of Admiral Beatty were chasing to the northward in the mellow light of the sinking sun to rejoin the Grand Fleet. The first phase of the battle was over, but contact was not completely lost before the German forces had time to reassemble, and, with an approach formation of line of squadrons and the cruisers in a scouting line in advance, to secure the fleet against surprise.

CHAPTER 11

SKAGERRAK—SECOND PHASE—THE ENGAGEMENT OF THE BATTLE FLEETS

At 6.30 p. m., as the fire of the British battle cruiser fleet on the one hand and the German battle cruisers and ships of Battle Squadron III on the other slowly died away, the British battle fleet, under Admiral Jellicoe, composed of 3 battle squadrons, was steaming in line of divisions in 6 columns about 23 miles to the northward of the *Lion*. After the detachment of the Third Battle Cruiser Squadron, only five new cruisers of the Fourth Light Cruiser Squadron remained available for the line of scouts. (*Calliope*, *Constance*, *Comus*, *Royalist*, and *Caroline*.) Instead of keeping these vessels far in advance of the fleet on a scouting line, Admiral Jellicoe had drawn them in close to the battleship divisions to form an antisubmarine screen and had assigned the older cruisers, *Active*, *Boadicea*, *Blanche*, and *Bellona*, a similar mission on the flanks. With regard to the later difficult deployment of the battle line, this disposition of forces was somewhat questionable, since the very important service of information in advance of the fleet fell to the very old and relatively slow armored cruisers of the First and Second Cruiser Squadrons. In accordance with the original plan, these vessels should have taken station in a line extending about 40 miles, with the guide about 16 miles in advance of the fleet flagship; but they had not reached half of this prescribed interval, as the battleships were steaming at 20 knots, when contact was made with the enemy. [See fig. 11 for the dispositions of the battle fleet with attached cruisers.] Further, owing to the constantly decreasing range of visibility, the scouting line had drawn together so that it covered only 25 miles in length, thus further reducing its effectiveness. Of the Third Battle Cruiser Squadron nothing further had been heard since its detachment, although it had been sent promptly to reinforce the battle cruiser fleet, and at 6.30 had advanced about 21 miles beyond the center of the battle fleet, which should have brought it on the scene of action by that time. As was later determined, this squadron, owing to a considerable error in the reported positions of the different flagships, the *Iron Duke* on the one hand and the *Lion* and *Southampton* on the other, had passed about 18 miles to the eastward of Admiral Beatty's forces; and at 6.40, although in the same latitude as the latter, had not sighted them. Thus, while this ad-

vantageous position which the Third Battle Squadron attained was due entirely to an error and can not be attributed to brilliant leadership, it was later to turn to the very favorable account of the British. Consequently, while the German advance screen was nearing the approaching screen of the Grand Fleet from the NW., they were surprised on the unprotected flank by an attack of Admiral Hood's forces. [Figs. 25 and 26]

Following the change of course of the German battle cruisers to the northeast, and the simultaneous change of the British battle cruiser fleet to NNE. (6.33), contact was lost for a short time, but was soon thereafter regained. At 6.40 Admiral Beatty was again able to recognize his enemy, and the battle cruisers, which had been relieved for a time by the Fifth Battle Squadron, were able to open fire.

At the same time Admiral Evan Thomas sighted the German battle cruisers, and with the *Barham* and *Valiant* joined in the fire on these vessels, while the *Warspite* and *Malaya* reopened the action against the barely distinguishable leading ships of Squadron III, although this fire was intermittent.

At the same time the First and Third Light Cruiser Squadrons, after having been ordered at 6.27 to regain contact with the German battle cruisers at 14,600 meters and to determine their course, had gradually hauled ahead and to the northward so that Admiral Hipper was obliged to resume course NE. in order to remain outside of torpedo range of these light cruisers. Also, the German main body was forced to change course to north at 6.40 and then to north by east, since this force was slowly being outflanked by the enemy battle-ships. Owing to the high speed of the fifth division the German line had gradually been drawn out and the distance between ships within the divisions themselves had been greatly increased; thus the leading ships *König* and *Grosser Kurfürst* (Captains Brüninghaus and Goette) found themselves alone with the battle cruisers opposed to the forces of Admiral Beatty, which were outflanking them. While up to this time the latter had stood out in bold relief against the sinking sun, they were now enveloped in the mists, which were spreading rapidly, so that *König* and *Grosser Kurfürst*, from 6.40 and 6.43, respectively, could not find their targets with their main batteries. On the other hand, the *König* seemed to offer a much better target, since from 6.40 many shells struck in her immediate vicinity. At 6.47 it appeared as though this ship, which was far in advance of the vessels following, was being fired on by at least three enemy battleships at the same time. It received its first hit in this phase of the engagement. In order to hold his formation together Admiral Behncke reduced speed at 6.49 to 18 knots, while

at the same time, he changed course with the *König* to NNE. Meanwhile, Admiral Scheer had realized the hopelessness of further pursuit of the enemy and the necessity for further strengthening his formation, which was too extended as a result of the signal for "reserve speed." At 6.50 he therefore ordered speed reduced to 15 knots, and with the Squadrons I and II swung into column in the wake of Squadron III. Since at that time it was becoming more and more difficult to make out the situation from the fleet flagship, he made signal "guide ahead," thus giving Admiral Behncke the choice of the battle course.

As a result of the failure of the battleship divisions to keep up, the pressure of the enemy outflanking movement was becoming more and more pronounced against the German battle cruisers, while the *Moltke* and *von der Tann* in particular were beginning to have difficulty in maintaining this high speed, which at times reached 26 knots. The fires had not been cleaned since 4 p. m. and were therefore very dirty, while the crew had had no food since noon and signs of exhaustion were becoming apparent among the firemen and coal passers. Further, the fuel oil lines for the auxiliary oil firing had been choked with sludge, which was stirred up in the tanks, and were, to a large extent, inoperative. Even more serious was the fact that the enemy fire, which would naturally be strengthened by a closer approach, could not be effectively returned owing to the complete reversal of the previous favorable visibility conditions, so that the guns of the battle cruisers were able to get on the target only intermittently and then for very short periods. For example, the *Derfflinger*, according to her gunnery report, did not fire a single shot from 6.42 to 7.16. In order to put an end to this state of affairs, Admiral Hipper made a change of course together to NNW. at 6.47 and at 6.51 a further change to north, in order to close with the enemy quickly, in the hope of bringing his fast flotillas to attack and thereby relieving the pressure on his ships. Of these, Flotilla II was the only one which had reached the assigned position ahead and to starboard of the cruisers. On the other hand, Flotilla IX, which had attacked at 5.30, was still far astern, while Commodore Heinrich and Rear Admiral Boedicker, with their light forces, among which was Flotilla VI, were steaming up to position. From the *Regensburg*, flagship of Commodore Heinrich, nothing was to be seen of the enemy except the flash of gunfire, while the salvos which were splashing all around the cruisers forced the destroyers to sheer out constantly.

But even while the German flotillas were advancing at full speed to take position to attack the still invisible forces of Admiral Beatty which were firing so effectively, the Grand Fleet approached rapidly from the northwest, and before the German forces had the slightest

intimation of the situation the light forces of Admiral Jellicoe and Admiral Beatty had made contact. At 6.33, Rear Admiral Napier, on board the *Falmouth*, which was cruising at the head of the Third Light Cruiser Squadron about 4 miles in advance of the *Lion*, sighted two or three armored cruisers approaching from the northwest. These belonged to the scouting line composed of the vessels of the First and Second Cruiser Squadrons, with the following ships, *Black Prince*, 11 miles to the southward of the western column of battleships, then *Duke of Edinburgh*, *Defense*, *Warrior*, *Minotaur*, and *Shannon* with the *Cochrane* on the eastern flank bearing ENE. from the last column of battleships. These older and slower armored cruisers, which were advanced an insufficient distance ahead of the fleet, were to prove entirely inadequate for **their mission** as an advance screen. The battle lines advanced rapidly from the southward toward the Grand Fleet and before the leader of the latter could be informed of the situation or receive any reports of the position of his own and enemy forces which were in action, the two fleets had clashed.

The *Black Prince*, being nearer the enemy than the other ships of the Grand Fleet, had at 6.40 p. m., after receipt of a searchlight signal from the *Falmouth*, reported battle cruisers 5 miles to the southward of her position. This was just at the time when Admiral Beatty reopened fire on the German battle cruisers. Although this message referred to Admiral Beatty's forces, for some unexplained reason these were designed in the radio which Admiral Jellicoe received some time later as enemy forces. (The *Black Prince* was later sunk in the night action.) Since the German battle fleet was assumed to be immediately behind their battle cruisers, this message from the *Black Prince* shifted the position of the former some 20 miles to the northwestward of the point they should have reached at that time, in accordance with the previous report of Commodore Goodenough. Admiral Jellicoe therefore reached the correct conclusion that the message from the *Black Prince* must refer to the forces under Admiral Beatty. Nevertheless, this inaccurate message only served to increase the great uncertainty of the British commander in chief, which was caused by the very meager and conflicting reports on the developments of the action, a situation which continued up to the time when it was no longer possible to delay the deployment of forces for battle. Then, while the *Black Prince* turned off to the westward in order to make way for the approaching forces of Admiral Beatty, shell splashed near the next ship in line to the eastward, *Duke of Edinburgh*, while at the same moment gunfire was heard or seen by all ships in the scouting line and also by the ships of the Fourth Light Cruiser Squadron near the battleships. Shortly thereafter, near the western flank of the advance

screen, the battle cruisers of Admiral Beatty appeared engaged in a brisk action, while to the northward of these were the First and Third Light Cruiser Squadrons, surrounded by splashes of shell from the enemy main and secondary batteries. The latter became involved in the midst of the screen of the battle fleet while these were deploying for battle, and therefore Admiral Beatty's signal at 6.50 to this force to attack the enemy van with torpedoes could not be carried out.

Finally the First Light Cruiser Squadron succeeded in breaking through between the fourth and fifth battleship divisions to the northward, thus making room for the other forces, which, with the destroyer flotillas of the battle fleet, were crowded together in the smallest possible space while attempting to take position for the pending attack of the battle fleet. At the same time the Third Light Cruiser Squadron joined forces with the screen of the fleet, the First and Second Cruiser Squadrons, and the Fourth Light Cruiser Squadron, and with these swung to the eastward in order to take station at the head of the battle squadrons on the probable battle course [fig. 27]. While still changing course at 6.47, however, Rear Admiral Sir Robert Arbuthnot, commanding First Cruiser Squadron, sighted from the *Defence* three or four light cruisers about four points to starboard, apparently on course NE. These were the ships of Scouting Division II, which were about 5 miles ahead on the starboard side of the German battle cruisers. The Third Light Cruiser Squadron was passing to the northward when he opened fire with the *Defence* and *Warrior* on the second or third cruiser which was most clearly seen (*Wiesbaden*), and, finding that the first salvos fell short, turned sharply toward the enemy. At the same moment shell struck near these light cruisers from the eastward, while from the westward the forces of Admiral Beatty were approaching in action with the German battle cruisers. At 6.50 even Beatty's ships had reached the fleet screen, and six minutes later he sighted the leading ships of the British battleship columns about 4 miles to the northward of the *Lion*.

Promptly reaching the decision to prevent Admiral Hipper's forces from sighting and reporting the pending deployment of the Grand Fleet, he turned with his battle cruisers sharply from NNE. to course east, and, steaming at full speed, supported by the Fifth Battle Squadron, sought to force the head of the German column around to this course. Consequently, the distance from the German battle cruisers, which were in sight and apparently followed by ships of the *König* class, was rapidly reduced from 12,800 to 11,000 meters. But even then the ships of Admiral Beatty's force could not be distinguished by the German forces and only

in the greater effectiveness of the fire was the approach of these ships made evident. At 6.55 the *Derfflinger* was struck by a major-caliber shell in the forward torpedo compartment and rapidly sank deeper in the water, owing to the volume of space flooded, while the entire forward part of the ship had to be cleared and all exits therefrom closed. At the same time several shots striking the *Seydlitz* at 6.57 near the bow caused a fire in the forecastle. The situation therefore became untenable for the German battle cruisers, as they were under heavy fire which they could not return, while now to the northward a large force of destroyers and light cruisers were assembling, apparently ready for torpedo attack. At the same time the head of the German line was lacking in fast flotillas, as these had been drawn off to meet an unexpected attack of a new enemy from the eastward. Admiral Hipper was therefore forced to turn to course east and break off the proposed attack on the enemy battle cruisers at 6.56. Finally, in order to free his ships from the effective fire zone of the enemy, he turned "ships right" at 7.05 to course SW. through south. [See fig. 27.] In this decision he was influenced by still other factors which have been barely indicated. At this time the Third Battle Cruiser Squadron joined in the action from the eastward, an attack which was as much of a surprise to the British as the German leaders.

Admiral Hood had advanced with this squadron about 25 miles ahead of the battle fleet and had sighted no enemy forces, when at 6.27 the light cruiser *Chester*, which was cruising about 5 miles to the westward of the squadron as a scout, heard gunfire to the SW. [See Note H, fig. 25.] From this direction heavy clouds of smoke were drifting toward the British cruisers, so that the range of visibility varied from 13,000 to 5,000 meters, and was at times as low as 2,000 meters. Shortly thereafter gunfire was seen through this smoke cloud, and at 6.36 the indistinct outlines of a cruiser with three stacks was sighted, which accompanied by a group of destroyers was steaming to the northward. In order to protect herself from torpedo fire in case this should not be expected advance screen of Admiral Beatty's forces the *Chester* turned immediately on parallel course, when two further cruisers appeared like phantoms in the mists and the British cruiser was suddenly overwhelmed by a hail of shell. This was Scouting Division II, under Admiral Beedicker, which was cruising about 5 miles to the NE. of the German battle cruisers. He was successful in deceiving the enemy by means of the English recognition signal, which had been made known by radio messages, and approached to within 5,500 meters of the British cruiser, which had suddenly appeared on the visible horizon. Fire was opened only when the vessel turned away. The *Frankfurt*,

flagship, Captain von Trotha, fired first at 6,400 meters, followed by the *Pillau*, *Elbing*, and *Wiesbaden*, as well as by the torpedo boats of Flotilla II to the northwestward and the Twelfth Half Flotilla in the rear. Completely taken by surprise, the *Chester* did not return this fire until after the third salvo, while the fourth salvo put the first gun of the port battery out of action and wounded and killed so many of the crews of the second and third that only the fourth gun could fire. In order not to confuse the spotting the *Elbing* and *Wiesbaden* received orders to cease fire. Meanwhile Admiral Boedicker was pursuing this cruiser at full speed to the NE., and thus ran into the Third Battle Cruiser Squadron. Admiral Hood had just heard the sound of gunfire from the direction of the *Chester*, when at 6.40 he turned his battle cruisers through nine points to starboard and at high speed stood in between the *Chester* and her pursuers, followed by the light cruiser *Canterbury* and four destroyers, which were about 5 miles to the southward of the battle cruisers. [Note G, fig. 26.] At 6.55 he opened fire on the German light cruisers with the battle cruisers *Invincible*, *Inflexible*, and *Indomitable* at a range of 7,300 meters, and continued this rather effective fire until shortly after 7 p. m., when the last German cruiser disappeared in a smoke screen. (In this pursuit he approached his own fleet so rapidly that the *Minotaur* and *Shannon* nearly mistook his vessels for enemy ships and fired on them.)

This heavy-caliber fire from a direction in which up to now no enemy forces had been sighted, reported, or expected was all the more surprising to Scouting Division II and to Admiral Hipper's cruisers and destroyers, since all of Admiral Beatty's forces appeared to be in action to the west and northwest, and, further, these new enemy forces from which the heavy fire was coming were still invisible. Only later were their bow waves visible, and finally, at 6.58, there appeared for a short time the ghostly and shadowlike outlines of the larger ships and accompanying light forces. Admiral Boedicker thought he recognized two cruisers of the "city class" and several battleships or battle cruisers on course NW. The *Elbing* and *Pillau* counted four first-line ships, but whether of the *Malaya*, *Iron Duke*, or *Agincourt* type was doubtful. Were these some of Admiral Beatty's forces which had unexpectedly hauled around so far ahead of the German van; were they new forces just coming on the scene of action; or were they part of the still invisible enemy battle fleet which had joined in the action with the light forces and destroyers? Each question appeared idle. The *Wiesbaden*, Commander Reiss, reported herself incapable of maneuvering and both engines out of commission when new salvos struck near these light cruisers from the north and northwest from an

invisible enemy (from *Tiger*, *Defense*, and *Warrior*). At the same time the German battle cruisers lay to the westward in the midst of heavy fire. There was no room to escape in that direction. The *Frankfurt* therefore turned to the reverse course with hard right rudder and was followed by the other ships of Scouting Division II, with the exception of the *Wiesbaden*. While still turning, the *Frankfurt* and *Elbing* each fired a torpedo against the large ships to the eastward; then they withdrew from the enemy fire in the smoke screen and for a wonder escaped undamaged. [Note B fig. 27.] Only the *Pillau*, Commander Mommsen, was struck by a 30.5-cm. (12-inch) shell at 6.58. which penetrated the forward boiler compartment through the smokestack. The oil and coal dust was set on fire, four boilers put out of commission, the chart house and upper and lower bridges fell in ruins, the reserve radio station was destroyed, but the ship could still maintain 24 knots speed and was finally successful in escaping in a smoke screen and rejoining the other cruisers.

While the German light cruisers were in the midst of their evolution in turning away from the enemy, the Twelfth Half Flotilla under Lieutenant Commander Lahs steamed up to attack first on easterly and then on northerly courses. While about to attack the badly damaged *Chester*, the latter group of destroyers had sighted an "enemy detachment of numerous large battleships" on course NW., and, breaking off the attack on the *Chester*, turned to attack this larger force on realizing the dangerous position of Admiral Boedicker's forces. At the same time the British destroyers *Shark*, *Acasta*, *Ophelia*, and *Christopher* were concentrated for attack behind the line of enemy capital ships. The first group, *V-69*, *S-50*, and *V-46*. (Lieutenant Commanders Stecher, Recke, and Krumhaar), approached to within six to seven thousand meters and fired four torpedoes, while torpedoes fired by the enemy destroyers at Scouting Division II passed by these boats. The latter were warned by signal, and as the first group of the Twelfth Half Flotilla then turned away to the westward under heavy fire from the ships attacked, it was unable to observe the results of the shots in the mists and smoke. Of the second group attacking, only the *V-45*, Lieutenant Commander Lassmann, was able to fire on the enemy ships, since the German light cruisers in turning away threatened to cross the line of fire. Therefore the *G-37*, Lieut. Commander Wolf von Trotha, was forced to direct his attack against the enemy destroyers, and fired a torpedo at the latter at a range of from five to six thousand meters. As the boats of the Twelfth Half Flotilla were returning from attack, they encountered Flotilla IX, under Commander Goehle, proceeding to attack with the signal "Z," i. e., the signal for attack. [Notes E and H, fig. 27.] Hindered in

this manner by the Twelfth Half Flotilla, only the leader, *V-28* (Lieutenant Commander Lenssen), *S-52* (Lieutenant Commander Ehrentraut), and *S-34* (Lieutenant Commander Andersen), were able to fire torpedoes at about 6,000 meters at the enemy capital ships, these being visible for only a short time. The other boats of this flotilla became involved in fights with the enemy destroyers, which, on account of their size, were frequently mistaken for light cruisers. Thus the *S-36* (Lieut. Commander Franz Fischer) fired torpedoes at 7,500 meters at what appeared to be two light cruisers with four stacks, the leading vessel remaining stopped after the first torpedo was fired; also the flotilla leader **[V-28]** fired at another light cruiser on course SE. at 7.08 at a range of 4,000 meters. Thereupon, Flotilla II, under Commander Schuur, steamed in between the fighting groups.

At the time of the attack of the Third Battle Cruiser Squadron this flotilla was ahead and to port of Scouting Division II at the head of the German column, had fired on the *Chester*, and then had turned away with the cruisers. Thereupon *G-101*, *G-102*, *G-103*, and *G-104*, led by Commander Boest, had followed Flotilla IX to attack. However, the *G-101* and *G-102* had not been able to sight the enemy, as the latter was blanketed by the retreating light cruisers. Only the last two boats, *G-103* and *G-104*, sighted suddenly to the eastward "a squadron of battleships" and turned sharply to attack the van of the enemy column. At this time the returning boats of the Twelfth Half Flotilla masked the target for these boats. A second attack was impossible, since their own battle cruisers were rapidly approaching and they had to make way, so that only the *G-104* was finally able to fire one torpedo at the second enemy ship at 6.55, at from 6,000 to 7,000 meters.

The other boats of Flotilla II, under Commander Schuur, were about to attack when signal was hoisted on the *Regensburg*, flagship of the second leader of destroyers: "Follow the leader." At that time the *Regensburg*, with the leaders of Flotilla VI and Eleventh Half Flotilla, was steaming up to the head of the column. Flotilla II assembled its half flotillas and the boats returning from attack, and joined the *Regensburg*, and pushing through the confined spaces between the battle cruisers and light cruisers of Scouting Divisions I and II, opened fire on one English light cruiser and destroyers which were approaching from ESE. One destroyer was fired on by the *Regensburg* from 7.04 to 7.08 at from 6,800 to 2,600 meters, and was brought to a stop. This destroyer was then taken under gunfire by the leader of Flotilla VI, *G-41*, which was following the *Regensburg*, as long as its guns would bear in passing. Thereafter *G-41* fired on another destroyer which appeared to be stopped at a distance of from 6,000 to 8,000 meters, silencing the fire from the latter

after the first straddling salvo. Since the German battle fleet was now approaching from the westward and this destroyer might still have an opportunity to fire torpedoes at this force, the *G-41* fired a torpedo set for a shallow run which exploded near the stern of the enemy boat. [The destroyer apparently was the *Shark*.] The Eleventh Half Flotilla also participated in this action. Then the *B-97*, of Flotilla II, made several hits with gunfire on this same destroyer, carrying away the center stack, and was about to fire two torpedoes at it when it was hindered by the *Regensburg* crossing the line of fire. The latter was firing at a light cruiser at from 8,000 to 8,400 meters from 7.08 to 7.17 until the enemy turned away and disappeared in the mists. [This was the *Canterbury*.] Meanwhile, on board the *B-98* (Lieut. Commander Theodor Hengstenberg), leader of Flotilla II, the after torpedo tubes were hit while being trained. Both tubes were put out of action and the mast went by the board, so that *B-98* had to join the *Regensburg* after turning away.

The choppy sea resulting from the large number of boats steaming at high speed, the motion of the vessels, and the spray on the telescopic sights made sighting difficult. However, *B-112* (Lieut. Commander August Claussen) fired 82 10.5 cm. (4-inch) shells in a short time against the light cruiser at a range of 7,500 meters and against a destroyer at 4,500 meters, while the *B-110* in the rear of the line was able to fire only two or three salvos, and the other boats were forced to turn away by the approach of their own forces. Further, the group under Boest joined with the "B" boats in the action from 7.05 to 7.20 p. m. At 7.15 the *Frankfurt* sighted a destroyer dead ahead, which was on fire and apparently in a sinking condition (*Shark*), and fired several straddling salvos at a range of 11,300 meters. Another destroyer (*Acasta*) attempted to go alongside but was driven off by German gunfire, while the sinking boat apparently hoisted a white flag, although continuing to fire from one gun. An English light cruiser to the southward was also taken under fire, which had to be ceased shortly on account of poor visibility, while at the same time the *Frankfurt* lay in the midst of a heavy fire.

In the uncertain light, and obscured by mists and smoke clouds, the enemy forces attacking from the eastward appeared to be much stronger than they really were, so that Commodore Heinrich, second leader of destroyers, was under the firm impression that the appearance of the numerous enemy destroyers, light cruisers, and capital ships indicated an attack of the Grand Fleet from this direction. If this were the case it was not only necessary to protect the German battle cruisers from the attack of the destroyers approaching from the eastward but to attack the van of the British battle line with all flotillas at the head of the German line in a massed formation in order to inflict as much damage to these as possible,

while disregarding the enemy forces to the north and northwest. In reality the attacking enemy forces which appeared so powerful in the mist were so small in number that the large number of destroyers only hindered each other without finding adequate targets.

At 7.13 the *Invincible* had to sheer out to starboard, as it appeared to the other ships following, and to stop on account of a torpedo hit. Shortly thereafter the *Inflexible* and *Indomitable* sighted several torpedoes, one of which passed under the former without exploding. Four other torpedoes which were sighted close aboard were running so slowly that it was evident they were at the end of their run and were easily avoided by sheering out with full rudder and high speed. Even the supposed torpedo hit on the *Invincible* had done so little damage, apparently, that the "breakdown" flag was soon hauled down, and the ship resumed her station at the head of the column. Even the *Chester*, with three guns out of action, wrecked boats, and holes in the stacks and hull, as well as the side armor, had her machinery intact—although two boilers were slightly damaged—and was able to escape to the lee of the Third Battle Cruiser Squadron. Thus the total loss to the English in this action was restricted to one destroyer.

This was the *Shark* (Commander Loftus Jones), which had turned to port after the attack on Scouting Division II after firing the forward and after torpedoes. At 7.15 this boat lay in a helpless condition, with fuel-oil lines shot through and steering gear wrecked. The reserve torpedo was about to be loaded when this was struck by a shell which exploded the air flask. Overwhelmed by the fire from the *Regensburg* and the German flotillas, the *Shark* could only return the fire with one gun, when she was struck by a torpedo fired from 4,000 to 6,000 meters and began to sink. The *Acasta* started to the rescue but was struck both fore and aft, while the *Shark* heroically refused all offers of assistance. The *Canterbury*, which, on southerly courses, tried to render aid to the *Shark* and *Acasta* by means of a well-directed torpedo defense fire, was struck by a 10.5 cm. shell, which pierced several bulkheads without exploding, and the vessel was forced to retire.

The extremely small losses of the English at this time were all out of proportion to the tremendous gain which resulted from this surprise attack of the Third Battle Cruiser Squadron on the unprotected flank of the German forces. This is a proof of the tactical advantage possible to a squadron operating singly and not in the fleet formation. Failing the attack of this force, the German torpedo attack, which had already been ordered, would have taken another direction, namely, against the forces of Admiral Beatty, and would in all probability have prevented the latter from completing the enveloping movement of the German van—as was done later

by the British Battle Fleet. In that event there is a possibility that the German battle cruisers and the Third Battle Squadron would have surprised the enemy fleet in the midst of their deployment for battle and would have been able to cap them (cross the "T") instead of later being brought into an untenable tactical position themselves by Beatty's outflanking movement. [This is excellent comment. Hood's forces exerted a powerful effect, which continued throughout the action.]

As at 7 p. m. Admiral Beatty entered between the leading ships of the columns of his own battleships on one side and the German battle cruisers on the other, he was under the impression that Admiral Jellicoe was about to deploy his battle line on the western flank. Only in that case could he take station ahead of the leading column in time to avoid interfering with the evolutions of the fleet, and thus masking its view of the Germans. Thus the sudden change of course of Admiral Beatty to the eastward was hard for Admiral Jellicoe to understand. The only message which he had received from Admiral Beatty since 5.48, "Have sighted enemy battle fleet bearing SE. My position $56^{\circ} 36' N.$, $6^{\circ} 04' E.$ " was, as previously stated, so distorted on receipt by the *Iron Duke* that after deciphering it read, "26 to 30 battleships, probably enemy, bearing SSE., course SE." Further, the commander in chief had received no word regarding the loss of the *Queen Mary* and *Indefatigable*. On the other hand, Commodore Goodenough, the commander of the Second Light Cruiser Squadron, which was in rear of the Fifth Battle Squadron, had sent five very exact reports from the *Southampton* from 5.38 on.

From 5.48 on Admiral Jellicoe knew from these radio messages that the van of the German column comprised vessels of the *Kaiser* class, that the German battle fleet had advanced to the northward to join the battle cruisers, and that the latter were on course north. Further, the changes of course to NNW. and back to north were both reported. These reports were further confirmed by the direction-finding stations on the east coast of England, which "cut in" the position of the German forces after each radio sent by the latter. At the same time the German messages were deciphered at the Admiralty and relayed to Admiral Jellicoe with very little delay. As early as 6 p. m. the latter had received in this manner the position of the German fleet, which was exact within 4 miles, and at 6.53 he was informed by radio from the Admiralty that the German fleet was in $56^{\circ} 31' N.$, $6^{\circ} 5' E.$ at 5.30 p. m., on course north at a speed of 15 knots. Even this reported position was accurate within 3 miles. According to all these reports he should have found the enemy directly ahead. Therefore, as soon as he saw, from the head of column of the Third Battleship Division, that the British battle

cruisers were crossing the course of his columns in action with a still invisible enemy, he sent the following message by searchlight to Admiral Beatty: "Where is the enemy battle fleet?" (7.01). That there had been some misunderstanding somewhere was clear, since Admiral Beatty had come on the scene a great deal farther to the westward than his previously reported position would have indicated. As stated before, this was due to an error in reckoning on the two flagships; thus the calculated position of the *Lion* was about 7 miles to the eastward of the true position, while the error of the *Iron Duke* was 4 miles to the northwest, making a total error of 11 miles. (Corbett: Naval Operations: Vol. III, p. 355.)

After this had been established by the sighting of the battle cruisers, Admiral Jellicoe believed, that in spite of the reports from the coast radio stations which were free from position errors, the German fleet would appear farther to the westward. Consequently, without waiting for an answer to the signal sent to Admiral Beatty, he altered course of his columns to south at 7.02 in order to gain sea room to the westward and to place his fleet directly in line of the probable approach of the German fleet. A few minutes later he was convinced, after a short consideration, that the new course was not advantageous. This new course, south, brought the leading ships of the columns in line of bearing with the western flank far advanced, thus making it very difficult to swing into column on course east. As a result of the sighting of Admiral Beatty's forces it was apparent that the D. R. positions reported contained errors in both latitude and longitude, and therefore the enemy fleet should be sighted about 20 minutes sooner than originally expected. Before the columns could execute this maneuver of changing course and resume the formation of divisions on line of bearing the enemy would have approached within battle range. It therefore appeared of the utmost importance to bring the fleet into formation as soon as possible with the line of bearing of the division guides at right angles to the bearing of the enemy in order to permit the fleet to swing into column in either direction. Therefore Admiral Jellicoe ordered the columns to return to course SE. at 7.06. At this moment he received from Admiral Beatty, who was then passing the western column of battleships about 2 miles to the southward of the *Marlborough*, the message by searchlight, "Enemy battle cruisers bear SE.," neglecting to answer the other question in regard to the position of the enemy battle fleet. This message therefore only added to the existing uncertainty in regard to the situation, since this directly contradicted a report received some 10 minutes before from Commodore Goodenough, from which it was to be assumed that the German battle cruisers were in rear instead of in advance of their own battle fleet. (At 6.50 the *Southampton* had reported "Enemy battle fleet had

changed course to north. Enemy battle cruisers are SW. of the battle fleet.")

In order to clear up this contradiction, there was nothing to do but repeat the message to Admiral Beatty, "Where is the enemy battle fleet?" Since, in the meantime, the German battle cruisers had made a simultaneous change of course away from the *Lion*, the latter had lost all contact with the last German ships, which he had had in sight. Thus the British commander in chief received no answer for the time being, and valuable minutes passed without his being able to receive the information necessary for the deployment of his battle line on the proper course. The general situation was further confused by the fact that Admiral Beatty, in giving the bearing of the enemy in his previous message, had neglected to give their course. At that moment, however, he did not know what had become of these forces.

Between the two lines there now lay the heavy smoke clouds from the hundreds of ships which were steaming at full speed to reach their assigned battle stations. These smoke clouds drifted in the light southwest breeze toward the northeast and there combined with the smoke screen which had been laid down by Scouting Division II, thus forming an impenetrable battle mist which was broken only by the flashes of gunfire, the detonation of shells, and the flames of explosions. On the German side the impression gradually dawned that new enemy forces had joined the engagement, but the German commander in chief was led to believe from the reports of Scouting Division II that the attack might be expected from the east and southeast. On the English side the uncertainty was not quite so great, although the cruisers and destroyer flotillas which were passing the battleship columns left a smoke cloud which screened all view of the enemy forces.

Thus the important service of information which was so necessary for the initial deployment of the fleet had entirely failed on the English side in spite of the large number of vessels available for this mission. The report of Admiral Beatty regarding the location of the German battle cruisers gave then, as before, the only definite information on which to base the estimate of the situation. The first and natural thought of the British commander in chief was to deploy in battle line on the western flank as this column stood nearest the enemy. Since heavy caliber shell were already beginning to strike between the columns of ships, this decision would have meant that the oldest and weakest division of his fleet would be exposed to the concentrated fire of the strongest German ships while in the midst of the evolution, and possibly further exposed to a mass attack from the German destroyer flotillas. Further, the other battleship divisions would be forced to

turn to starboard to form column on the sixth division, and then to turn to port in the wake of that division, thus exposing them to heavy concentrated fire at the turning point before their own gunfire could become effective. Finally the execution of this maneuver would have brought the battle lines well within range of the torpedoes of the German battleships, which, in view of the well-known powerful torpedo armaments of these ships, would, in Admiral Jellicoe's opinion, have been fatal. One must agree with the British commander that such a decision would have brought his fleet into a position the Germans would have very much desired. The second possibility would have been to take the lead with the flagship from the middle column, a maneuver which had often been practiced, but which was rather too complicated to be executed in the moment when they were immediately ahead of the enemy. There remained nothing to do but to form the battle line on the eastern flank, even though in so doing the evolution would at first bring the fleet farther away from the enemy.

At about 7.06, Rear Admiral E. F. A. Gaunt, commander of the fifth division, sent the following signal from his flagship *Colossus*: "Remember the traditions of the glorious 1st of June and avenge Belgium."

As a result of the development of the battle line on the eastern flank, quite some time elapsed before the British battle fleet was able to join the engagement. It was 7.08 before Admiral Jellicoe made the initial preparation for assuming battle formation, by sending two of his destroyer flotillas to the head of the line and the other to the rear; and it was 7.14, or four minutes after he had again asked Admiral Beatty for the position of the enemy fleet, before all doubts were removed regarding the correctness of the procedure of deploying on the eastern flank. At the moment when the *Defence* and *Warrior* passed ahead of the *Lion*, crossing the course of the First Battle Cruiser Squadron, Admiral Beatty sighted the leading ships of the German Battle Squadron III and reported by searchlight signal, "Have sighted enemy Battle Fleet, bearing SSW." Shortly thereafter, the *Lion* and *Tiger* were again engaged in a lively action with the German battle cruisers. On the *Barham* the leading ship of Battle Squadron III was also sighted, bearing SSE. A report could not be made, however, until the message had lost all importance, since at 7.15 Admiral Jerram, on the *King George*, leading the eastern flank division, had received orders from the commander in chief to stand on battle course southeast by east and to take over the leadership of the British van. At the same time the columns swung to port on signal, and forming column followed in the wake of the leading division on the ordered battle course. This evolution was just beginning when the first shell struck

in the vicinity of the fleet flagship. At that time the situation was not entirely clear to the commanders of the battleship divisions. As observed from the leading ships in the column, the following picture was presented: Ahead and to starboard the battle cruisers under Admiral Beatty were in action with enemy forces, which could not be distinguished; ahead of the battleship columns and between these and the enemy were a number of armored cruisers, light cruisers, and destroyers, which were only visible by the flash of gunfire, lying in the midst of a heavy fire and trying to take position on the flank of the fleet while the latter was still in the midst of the evolution [fig. 28]. Their excess speed was too small to permit them to clear the field for the British battleships, the majority of which, being tormented by a well-directed fire, could find no other target than the *Wiesbaden*, which was lying helpless between the lines, and opened fire on that vessel. In this fire, the *Marlborough* lost one of her heavy-caliber guns as a result of an explosion which blew off the muzzle.

Under the poor visibility conditions which prevailed at the time the rear division of the British fleet found itself in a dangerous position on turning into the battle line. Scarcely had Admiral Burney, at the head of the rear (sixth) division, turned to port, in order to follow in the wake of the battle line to the northeast, when straddling salvos struck near the *Agincourt* and *Hercules*, the rear ships of the column, and the water from the splashes was thrown over these ships. This shows the exceedingly dangerous position the fleet would have been in had the deployment been made on the western flank which was already almost within torpedo range of the enemy ships. [Very correct comment.]

"Whatever circumstances may have influenced the battle cruiser fleet to fall back on the battle fleet as they did, the result was very unfortunate. Even the fifth division was not in position to open fire on the enemy, as the battle cruisers stood in between, and when the latter were clear of the battleships, it was very difficult to make out in the smoke of battle whether the ships coming in sight were friend or foe." (Report of Rear Admiral Gaunt: Battle of Jutland Official Dispatches, p. 77.)

Only after the battle cruisers had drawn clear was it possible for the rear ships at least to make out the enemy forces. The sixth division at the rear of the column made out four ships of the *Kaiser* class and four ships of the *Helgoland* class, so that at 7.17, the *Marlborough*, which was leading the division, opened on a ship of the *Kaiser* class at 11,900 meters, but was forced to cease fire after the seventh salvo, at 7.21.

It was a fortunate accident for the English that the Fifth Battle Squadron was able to relieve the rear squadron of the battle

fleet in this critical situation and bear the brunt of the attack, as they did before in the case of the battle cruisers. [A well-deserved tribute to Admiral Evan Thomas.]

At 7.06, as Admiral Evan Thomas sighted the *Marlborough* leading Admiral Burney's division, and a few minutes later the other ships of that division came into view, he believed, as had Admiral Beatty, that the other battleship divisions were to the northwest (as they were not in sight) and that these ships were leading the already developed British battle line. In that event the course which had been prescribed by Admiral Beatty would lead him directly across the course of the sixth division and thus bring him, with the battle cruiser squadrons, at the head of the British line into the position desired. But while he was engaged in action with the German battle cruisers and Battle Squadron III, he sighted the other ships of the battleship columns at 7.19 and then realized as he crossed the course of the sixth division that his first impression had been in error. The British fleet was still in the process of deploying and the deployment had been made on the eastern flank instead of the western. The battle station of this fast Fifth Battle Squadron was then at the head of the first division instead of near the sixth division. But it was impossible to arrive at this station without entirely masking the fleet which had already been hindered in the execution of the maneuver by the battle cruisers. There remained nothing for Admiral Evan Thomas to do but swing out on a wide arc with reduced speed and place himself in rear of the sixth division, contrary to the battle orders. (The battle orders provided that in case the battle line was developed in the direction of Helgoland the Fifth Battle Squadron as well as the battle cruisers were to take battle stations at the head of the line. Only in the event that the line was headed toward their own bases was the Fifth Battle Squadron to take station in rear of the line.) This maneuver he found a difficult problem, owing to the large number of light forces which were between him and the battle cruisers, and which were striving to reach their battle stations, while at the same time the battle lines were drawing together and a new attack was being initiated by the German battle cruisers.

At 7.05 the German battle cruisers had executed ships right to course south, while from the *Von der Tann*, which stood nearest the enemy, four enemy battle cruisers and four battleships could be made out to starboard. [Note I, fig. 27.] These were the First and Second Battle Cruiser Squadrons and the Fifth Battle Squadron. By this time such a large volume of water had entered the *Seydlitz* that it had reached the second deck in the forward compartments, and, the forward part of the vessel having lost all buoy-

ancy, it gradually listed over to starboard. While shells were striking all around Admiral Hipper's forces from both sides, Rear Admiral Boedicker reported, as a result of the attack of the Third Battle Cruiser Squadron, that enemy battleships had been sighted to the eastward, and that the *Wiesbaden* had remained disabled in that vicinity. [This completely incorrect information had a very unfavorable influence on the conduct of the action by Admiral Scheer.] At the same time he asked Commodore Heinrich to dispatch destroyers to the damaged cruiser in order to take her in tow. He had already given up hope that this would succeed, on receiving a radio from the Admiral Hipper through the *Derfflinger* at 7.17 that Scouting Division I would have to turn away from the enemy, when the latter, led by the *Lutzow*, made another turn and advanced at high speed toward the *Wiesbaden*. [Fig. 28, Note K.] At this time, as was also observed from the *König*, a large number of enemy light cruisers and destroyers approached the *Wiesbaden*. Even the enemy capital ships maintained a heavy fire on this light cruiser, which was so valiantly defending herself. In order to relieve the pressure on that vessel and on the battle cruisers, Admiral Behncke turned towards the enemy two points with Squadron III with increased speed at 7.15. In this he was followed by Admiral Scheer on the *Friedrich der Grosse* and Squadron I at 7.18 in order to bring the *Wiesbaden* behind their own lines if possible.

At the same time the Third and Fourth Light Cruiser Squadrons advanced from behind the line of armored cruisers, *Black Prince*, *Defence*, and *Warrior*, in what appeared to be a very bold torpedo attack on the German head of column, and opened fire on the *Wiesbaden*. In this attack the *Falmouth* fired a torpedo at the *Wiesbaden* at a range of 4,600 meters. The British light cruisers were, however, so intensely engaged with the *Wiesbaden* that they did not even turn away under the hot torpedo defense fire from the German Battle Squadron III, so that the unfortunate cruiser became the focus of a lively battle, which raged ahead of the still invisible British battle fleet. At this time the destroyer *Onslow* proceeded to attack. This boat had participated in the attack with the *Moresby* on the German battle cruisers about an hour earlier, which had been defeated by Scouting Division II, and since that time had taken station to starboard ahead of the *Lion*. At 7.05 the *Wiesbaden* had been sighted about 5,500 meters ahead of the First Battle Cruiser Squadron. Since the former appeared to be in a favorable position to fire torpedoes at the English battle cruisers, the *Onslow* fired 58 salvoes at this ship at ranges from 3,600 to 1,800 meters; then, since the German battle cruisers had at that time headed for the *Wiesbaden*, the destroyer suddenly found herself in a favorable position for torpedo fire against these forces. When the

latter had approached to within 7,300 meters, the commanding officer, Lieutenant Commander Tovey, ordered all torpedoes to be fired. But the first torpedo had scarcely left the tube, directed at the middle battle cruiser, when the *Onslow* was struck by two shells from the secondary battery of the *Lutzow*, while the escaping steam completely enveloped both torpedo tubes. The danger to the *Lutzow* had still not been allayed, since at this time the destroyer *Acasta*, Lieutenant Commander Barron, which had been with the Third Battle Cruiser Squadron, proceeded to attack.

This boat had just left the destroyer *Shark* under heavy gunfire, when owing to the new advance of Admiral Hipper, she suddenly found herself in a favorable position for attack on the flagship of the latter forces. Although in turning to attack he was met with a rain of shell from the secondary batteries of the German ships he was still able to fire a torpedo at the *Lutzow* at a range of 4,000 meters. Even this time the zeal and determination which characterized the British destroyers in attack was not rewarded [that is, when they were allowed to get into the fight by their superiors], and the *Lutzow* was not hit, while the destroyer turned away enveloped in smoke with damaged steering gear and broken steam lines so that she could neither stop nor steer, until 7.30 p. m. Meanwhile Lieut. Commander Tovey, commanding the *Onslow*, had learned that contrary to his orders only one torpedo had been fired at the battle cruisers, whereupon he proceeded to within 3,200 meters of the *Wiesbaden* and fired another torpedo which struck the cruiser under the bridge but still did not cause the latter to sink. Scarcely had this shot been fired when there offered a very much better target for the two remaining torpedoes. About 5 miles away a long line of battle ships were sighted through the battle smoke which proved to be Battle Squadron III approaching at high speed. Although one fire room was out of commission on the *Onslow* and the engines were only capable of 10 knots, Lieut. Commander Tovey again proceeded to attack although he could count with certainty on the complete destruction of his boat, and fired his last two torpedoes at the battleships. One of these was sighted by the *Kaiser* at 7.25, and since it was running on the surface was easily avoided. [Fig. 28 for *Onslow's* position.] The destroyer escaped. The attention of the ships of the battle fleet was concentrated on other developments of greater importance.

At 7.05 the armored cruisers *Defence*, *Warrior*, and probably *Black Prince* had opened fire on the *Wiesbaden*; then at 7.15 they crossed the course of the battle cruisers directly ahead of the *Lion*, causing the latter ship to sheer out. If Admiral Arbuthnot had expected to find the destruction of the *Wiesbaden* an easy task, he was to pay dearly for his error, since at this time the outlines of

the German battle cruisers and the battleships of Squadron III appeared from the southwest through the smoke of battle. From the *Lutzow* there was suddenly sighted at close range the outlines of a cruiser with four stacks in the lee of the barely discernible First Battle Cruiser Squadron. At first this was thought to be the *Rostock* since it seemed highly improbable that such old armored cruisers would approach so close to the German first line ships. However the commanding officer, Captain Harder, was certain that he had an English ship ahead of him, and opened fire at 7.16 while the *Derfflinger* still hesitated. At 7,000 meters he also fired a torpedo at this enemy cruiser, whereupon the *Grosser Kurfürst*, *Markgraf*, *Kronprinz*, and *Kaiser* joined in the fire. [Notes J and K, fig. 28] Admiral Arbuthnot realized the danger of his position too late. At 7.20 all three [the *Black Prince* was probably not in this column] armored cruisers lay in the midst of concentrated and extremely hot fire. Salvo after salvo struck these ships in the shortest possible time, while observers on the Fifth Battle Squadron saw the German secondary batteries lay barrage fire at a definite range from the German ships. At this moment the *Defence* was completely covered with the splashes, while aft and then forward tremendous flames broke out of the turrets and the third catastrophe of this nature occurred, a misfortune in this battle which was restricted to English ships. The *Defence* blew up in a crater of flame with an explosion which was heard by both fleets. Where a ship had been before there remained nothing but a cloud of smoke over the water, while no survivor escaped to testify to the disaster. The hard-pressed *Black Prince* and *Warrior* were only barely able to escape a similar catastrophe. A severe explosion occurred near the stern of the latter ship which enveloped the whole ship in a large smoke cloud under the protection of which the armored cruisers were able to escape to the lee of the Fifth Battle Squadron, since at this moment a breakdown of the steering gear caused the *Warspite* to sheer out toward the enemy, thus covering the *Warrior* from further enemy fire and assisting that vessel to escape.

As Admiral Evan Thomas swung in astern of the sixth division with the Fifth Battle Squadron he came under the fire of the German Sixth Battleship Division, although at the time the German fire was rather uncertain on account of the poor visibility. In this fire the *Kaiserin*, Captain Sievers, firing at ranges from 11,000 to 11,500 meters, made a hit on the *Warspite* which indirectly caused a breakdown of the steering gear of that battleship at 7.17 p. m. [Note D, fig. 29.] In making a turn to port the *Warspite* had come too close to the *Valiant* and was trying to turn to starboard when the rudder jammed as a result of the hit and the ship, barely missing the stern of the ship ahead, sheered out toward the German Battle

Squadron III. All efforts to bring the ship back into line were in vain, so the commanding officer decided to swing around in the circle at full speed and thus attempt to get back to his station. But even this maneuver was only successful after the ship had described two complete circles toward the enemy. However—luck in misfortune—the sheering out of this ship saved the *Warrior* from annihilation since the latter was thereby screened from the enemy fire. This battleship thereby drew on herself the concentrated fire of a large number of German ships which had only then been able to find a target. At 7.20 the fleet flagship *Friedrich der Grosse* opened fire on this ship, followed at 7.22 by *König*, at 7.24 by *Helgoland*, and immediately thereafter by *Ostfriesland* and *Thuringen* at ranges of from 8,800 to 14,000 meters, with combined main and secondary batteries, while passing on course northeast. Since, however, Battle Squadron III shortly thereafter was forced by the developments of the battle to change course to east-northeast and then to east the *Warspite* was lost to view of the *König* at 7.26 and fire ceased. After 20 salvos the *Thuringen* shifted fire to the next ship to the right (*Malaya*) and at 7.35 the *Friedrich der Grosse* and *Helgoland* lost the target, while the *Nassau* followed three minutes later by the *Oldenburg* took up the fire on the *Warspite* at a range of 14,000 meters. Only the *Ostfriesland* was able to continue the fire until 7.45 on this English ship, from which the flames were seen to be spurting after the fourth salvo; in the gathering twilight and smoke clouds the ship could barely be distinguished, so that the fire, at ranges from 13,000 to 16,000 meters, was slow and interrupted. Finally, when the firing director sights as well as the range finders and turret sights lost the target, fire was ceased, the high relative humidity having caused the lenses to fog and thereby limited the gunfire. Owing to these circumstances the *Warspite* was able to escape to the northward from the fire of the German ships, although hit 11 times, and able to return only a weak fire. An attempt to resume station in the line astern of the *Malaya* after putting another steering station in commission had to be abandoned when it was found that water had penetrated the machinery spaces through the badly shot-up hull when speed was increased over 16 knots. Therefore, the commanding officer, Capt. E. M. Phillpotts, was ordered to leave the formation and return with his ship to Rosyth.

On the other hand, the remaining ships of the Fifth Battle Squadron had suffered very little under the German fire after swinging in astern of the sixth division. A number of heavy caliber salvos had passed close aboard these ships, but aside from the *Warspite* only the *Valiant* was hit and then only by 15 cm. (6-inch) shell which struck the side armor and smokestacks. The major

caliber hits which the other vessels had received all occurred during the German pursuit to the northward; thus the *Barham* had 6 hits, *Valiant* 1, *Malaya* 7—3 from the battle cruisers and 4 from battleships. (Battle of Jutland, Official Dispatches, page 194.) After swinging into line in the wake of the *Agincourt*, the Fifth Battle Squadron opened fire at 7.30 partly on the German Squadrons I and III and partly on the *Wiesbaden*.

Meanwhile Admiral Jellicoe had not failed to perceive the disadvantages of the deployment of the battle line on the eastern flank which was leading the battleships away from the enemy, since the battleship squadrons were thereby hindered from joining in the action which the First and Second Battle Cruiser Squadrons, the Fifth Battle Squadron, and the armored cruisers were carrying on. The First and Second Battle Cruiser Squadrons had scarcely passed the fleet flagship and their smoke cleared from the scene when Admiral Jellicoe was able to make out a number of the German ships outlined against the sinking sun as these steamed on a slightly convergent course to the eastward in action with the British cruisers. At 7.24 and 7.27 he received further reports of the location of the enemy Battle Fleet from the *Southampton* and *Lion* respectively. With a fast division at the head and rear of his nearly deployed battle line there was now offered the possibility of approaching within effective gun range of the enemy and bringing his full superiority to bear on the latter, ship against ship. At 7.29 he therefore ordered a change of course from SE. by E. to SSE. for his ships in order to make a sharp approach on the enemy. But a short reconsideration served to convince him that this signal must be annulled. The necessity for reducing speed in order to permit Admiral Beatty's forces to pass clear, had seriously hindered the already very much delayed deployment of his battle line. Behind the fleet flagship, several detachments had had to stop and sheer out owing to the congestion of the line, thus greatly hindering each other, while the rear division at 12 knots had not yet reached the turning point of the column. Instead of the battle squadrons being in a long, straight line, there was a highly undesirable elbow in the column; and owing to the rigid tactics of the British fleet, it did not seem possible for the commander in chief to turn his divisions out of this formation to the desired course of SSE. Admiral Beatty had passed the rear squadrons at 26 knots, and masking the other ships, approached the head of the column at such a sharp angle that Admiral Jerram on the leading ship, *King George V*, was forced to sheer out to port to make way for him, thus bringing his squadron further away from the enemy. Nothing remained for Admiral Jellicoe but to hold his previous course and at 7.33 the battle cruisers were far enough in the lead to permit the

battle fleet to resume 17 knots speed. Therefore, it had not joined the engagement without considerable delay and it was 7.25 before it could exert any effective strength. The reasons for this lay in the fact that the German forces had clashed with the fleet screen on an unexpected bearing, thus making the deployment of the fleet on the eastern flank unavoidable, and this in turn brought about a situation where Admiral Beatty had no other recourse than to steam as he did along the entire British line, between the latter and the enemy, in order to take his station at the head of the column.

Disagreeable as was the necessity for holding this course, this maneuver was to prove very advantageous to the English in the further development of the battle. At 7.20 the Third Battle Cruiser Squadron under Admiral Hood was approaching Beatty's forces from the eastward in order to carry out the orders of the latter to take station ahead of the battle line, while Admiral Beatty changed course to east and at 7.26 to ESE. to join forces with the Third Battle Cruiser Squadron. While the German ships at this time were engaged in action against the *Defence*, *Warrior*, and *Black Prince*, and their attention was concentrated on saving the *Wiesbaden*, a new fast and powerful force was being concentrated ahead of the German line which was not realized by the latter. This force was shortly to bring the German line into an untenable position since the head of the column was entirely divested of destroyer flotillas.

The fire effectiveness of the First and Second Battle Cruiser Squadrons remained small even after the passing of the *Warrior* and *Defence*, which had somewhat blanketed their fire. In particular the *Lion* seemed to be able to join in the action with greatly reduced gunfire, on account of the hits sustained, while the *Princess Royal* had been struck by a salvo passing over the *Warrior* at 7.22 which had put one turret out of action and penetrated the ship's side in the wake of the after machinery space. This ship apparently fired only two salvos therefore from 7.20 to 7.35, while from 7.21 to 7.29 the *Tiger* and *New Zealand* fired 7 and 11 salvos, respectively. Therefore, the junction of the Third Battle Cruiser Squadron with Admiral Beatty's force at this time was all the more advantageous. The German battle cruisers and Battle Squadron III were still on course northeast, when, shortly after the sinking of the *Defence* they encountered an effective and well-directed fire from the north-northeast at a distance of about 10,000 to 11,000 meters. With regard to the previous developments of the battle, this force was at first assumed to be a new detachment of enemy battleships. This fire was so effective that the *Moltke* believed it to come from 8 or 10 ships of the *Malaya* or *Iron Duke* class. In reality this was the Third Battle Cruiser Squadron under Admiral Hood, which at this time had suddenly sighted the *Lutzow* and then the other ships of

the German battle cruiser and battleship squadrons. Crossing the course of these ships at 7.20 they delivered a raking fire from ahead and passing between the British Third and Fourth Light Cruiser Squadrons, executed a brilliant maneuver at 7.22 which placed these ships about 2 miles ahead of the British battle fleet. [A well-deserved tribute to Admiral Hood.] Steaming at the head of this column they then renewed the action against the German battle cruisers with the starboard battery.

This maneuver was the initiation of the sudden fire superiority against the German head of column which in a few minutes was to reach the height of its effectiveness during the battle, since at this time the British battle fleet was commencing its attack. The van of the English battle line was still blanketed by the smoke of gunfire and from the stacks of Admiral Beatty's forces when, at 7.24, the *Agincourt*, the rear ship of the line, sighted the German battle cruisers and opened fire on them, followed by the *Bellerophon* from the middle of the line, while the *Conqueror* opened fire on a ship of the *König* class. One minute later the *Thunderer*, eighth ship in line and directly ahead of the fleet flagship, sighted four enemy ships, battlecruisers and ships of the *König* class, but could not open fire on account of being blanketed by the ship ahead, since at the time the battle line was elbowed. At the same time the Third Light Cruiser Squadron, which was now in advance of Admiral Beatty's forces, sighted the *Lutzow* and *Derfflinger*. These cruisers, together with the destroyer *Ophelia*, which had returned to the *Invincible* after the first attack, joined in an attack on the German battle cruisers, and from 7.25 to 7.29 the *Falmouth*, *Yarmouth*, and *Ophelia* fired torpedoes at ranges of from 5,400 to 7,300 meters. While this attack was being countered with the rapid fire of the secondary batteries of the leading German ships, the ships of the *Lutzow* class and *König* class were fired on at 7.30 by the *Hercules*, *Colossus*, *Benbow*, and *Iron Duke*. At 7.31 the *Conqueror* joined in this fire on the *König* followed at 7.32 by the *Orion*, then *Monarch*, *Thunderer*, *Royal Oak*, and *Revenge*. Although most of the splashes disappeared in the smoke clouds and the poor visibility permitted the ships to fire only from 4 to 8 salvos, at ranges of 10,000 to 12,000 meters, the fire proved very effective. In this the British fleet flagship was very lucky. Scarcely was the field clear after the passing of Admiral Beatty's forces when this ship opened fire on the leading ship of Squadron III, which was just coming in sight (*König*). At that moment the rays of the sun, which was bearing N. 54° W. brilliantly illuminated the ship, so that the *Iron Duke* was able to fire 9 salvos (43 shots) in 4 minutes and 15 seconds, without being seen or fired on by the enemy ships. This fire ceased when the German head of column disappeared in the mists.

Ahead of the German column, extending from northeast to northwest, nothing could be seen but the flash of gunfire from an unbroken line of enemy ships, while all around, salvo after salvo struck in the immediate vicinity. The situation appeared all the more grave, as the fire could not be effectively returned since none of the British capital ships were distinguishable in the smoke of battle. The *Lutzow* and *König* in particular, lay in the midst of a very heavy fire, so much so that it appeared as though several ships were concentrating on these two flagships. From 7.26 on the *Lutzow* was struck time after time near the bow, while from 7.32 on the *König* was also hit frequently. Fire broke out in the fore part of this vessel from the shell penetrating the forecastle, while splinters and clouds of gas enveloped the bridge as the ship heeled over $4\frac{1}{2}^{\circ}$ to port after a severe concussion. At this moment the first leader of destroyers, Commodore Michelsen, who, with the *Rostock*, Flotilla III (seven boats), and the First Half Flotilla (four boats) had been steaming to starboard ahead of the Battle Squadron III waiting to attain a favorable position for attack since 6.45 p. m., now realized that the proper moment had come. [Note F, fig. 30.] As a matter of fact, an energetic attack with full force at this time must relieve the head of the German column. However, the enemy was still so barely discernible, that the commander of Flotilla III asked Commodore Michelsen in which bearing the attack should be developed. He had scarcely passed through the line between the *Rostock* and the battle cruisers, in order to carry out these orders and transmit them to the boats, when turning off to starboard to fire three torpedoes, he suddenly sighted through the smoke clouds the faint outlines of enemy capital ships at a distance of about 6,500 meters. Since the flotilla would hardly be met with an energetic torpedo defense fire at this range the commander decided to make a closer approach. At this moment, however, he received a radio from Commodore Michelsen not to attack, and in spite of the fact that the very favorable opportunity for attack could not be seen from the flagship, he broke off the attack and returned to the *Rostock*. (The reason for the signal to break off this attack is given later.) In turning away, however, the *G-88* (Lieutenant Commander Scabell), the *V-73* (Lieutenant Commander Delbruck), and probably the *V-48* (Lieutenant Commander Eckoldt) which had not received the last order, fired one torpedo each, which must have passed close astern of the First and Second Battle Cruiser Squadrons and reached the head of the British battle fleet column, since at 7.47, the armored cruiser *Duke of Edinburgh*, which was immediately ahead of the line, was forced to sheer out from a torpedo which was attributed to a submarine. At the same time the *King George V* sighted a torpedo directly ahead of the

ship distant about 3,600 meters away. Meanwhile another danger than the unfortunately abandoned torpedo attack confronted the Third Battle Cruiser Squadron.

At 7.30 the smoke clouds parted for a short time so that the Germans were able to see the *Invincible* clearly outlined against the black smoke and powder clouds which still shrouded the other British ships; whereupon the *Lutzow* and *Derfflinger* concentrated fire on this ship which had just become visible. Although hit several times, this battle cruiser returned the fire with such good effect that Admiral Hood called out from the bridge through voice tube to his gunnery officer, Commander Dannreuther, "Your fire is very good, keep it up as fast as you can—every shot is a hit." But immediately thereafter his flagship met her fate. With the second salvo, the *Lutzow*, with fire directed from the after station by Lieut. Commander Gustav Bode, had straddled her target, and as the time of flight gongs sounded for the impact of the third salvo the same catastrophe overtook the enemy ship which had already befallen the *Indefatigable*, *Queen Mary*, and *Defence*. At 7.33 the third salvo of the *Lutzow* struck the British battle cruiser between the two center turrets, penetrated the armor, and exploded inside, so that the turret roofs were hurled high in the air and the ammunition below exploded. Flames broke out all over the ship and a tremendous explosion was heard by both the German and British ships. In the place in which the *Invincible* was formerly seen nothing remained but a mass of wreckage and a smoke cloud which rose several hundred meters above the water. Thus the mother of all battle cruisers had gone the way of the two others. (N. B. Corbett: Naval Operations, Vol. III, p. 366. The *Invincible* was the first ship of this class.) [Von Hase claims the *Invincible* for his ship, the *Derfflinger*.]

As the *Inflexible* and *Indomitable* sheered out to avoid the wreck of the *Invincible* they noticed that the bow and stern of the ship appeared to be widely separated, with each part resting on the bottom in the shallow water, while a group of six men, including the gunnery officer, managed to escape on a raft. These were rescued by the destroyer *Badger* of the First Flotilla on orders from Admiral Beatty. Admiral Hood, worthy of the best traditions of his forefathers, had paid with his death for his part in the brilliant operations he conducted in the opening phase of the battle. Four minutes later a heavy caliber shell struck the conning tower of the *König*. The shot glanced off and detonated about 50 meters from the ship, whereby the commander of Battle Squadron III, Rear Admiral Behncke, who was on the bridge, was wounded, but still retained command of his squadron.

CHAPTER 12

SKAGERRAK—THIRD PHASE—FROM 7.30 P. M. TO NIGHTFALL

The explosion which caused the loss of the *Invincible* brought to an end one phase of the battle in which the English losses had far exceeded the German, in spite of the fact that the British battle fleet had joined in the engagement. Favored by the surprise attack of the *Invincible* on the unprotected German flank, as well as the decrease in range of visibility experienced by the German ships, the British fleet had obtained a tactically superior position. In this the British were helped considerably by the attempt of the Germans to maintain contact with the enemy forces once this had been established, a desire which may be readily understood considering the long period in which the fleet had been held back from offensive operations. Had the German commander in chief and his subordinates been less eager to close with the enemy which they had sighted, the presumption that additional strong enemy forces might be encountered to the northward would have then induced the commander in chief to undertake a somewhat less energetic pursuit of the British battle cruiser fleet, to seize the opportunity to consolidate his formation and bring his divisions into "approach formation" (with the division leaders on line of bearing about NE.-SW.), proceeding to the northward at reduced speed, with well-advanced screen in scouting line, and prepared to swing into battle line at the proper moment across the bearing of the British battle fleet. In that event the head of the German column would not have run, as it did, into the ring of battleships which was forming to the northward without being strongly supported by the divisions which were in the rear of the formation. (Comment in the War Diary of the *Kaiser*, Captain Count von Keyserlingk.)

As a matter of fact the question was raised on the fleet flagship during the pursuit of the battle cruisers, as to how long the pursuit should be continued, in view of the time which had elapsed, since the advance into the Skagerrak was now a dead issue and the contact with the enemy forces had already been achieved. If the pursuit were continued too long there was the danger that the English light forces might not be shaken off before dark and thus be given opportunity for night torpedo attacks, which might result in losses to the battle fleet. After the sighting of the British battle cruiser fleet there was not much doubt that the British battle fleet

was somewhere in the vicinity, while if this were the case everything depended on the German fleet being able to meet them with full strength should the enemy offer battle the next morning. These considerations had, however, led to no decision when the fleet clashed with ships which could only be vessels comprising the screen of the Grand Fleet. Admiral Scheer thereupon held to the firm decision to fight the pending battle on his previous battle course with his full strength.

While the *Friedrich der Grosse* with the *Kaiserin* and ships of Squadron I were firing on the *Warspite* and Squadron III was firing on the *Defense*, *Warrior*, and *Black Prince*, the enemy fire on the head of the column was increasing in intensity without the majority of the German ships being in a position to join in the engagement. Only the *Prinzregent* was able, at 7.15, to fire at ranges of from 17,200 to 16,000 meters at a ship in the English battleship column (*King George V* class). Meanwhile, as could be observed from the *Friedrich der Grosse*, the *König* was exposed to very heavy enemy fire, while the line ahead of the fleet flagship had taken a decided curve, due to the noticeable outflanking movement of the enemy forces.

This resulted in a tactical formation very unfavorable for effective gunnery and further prevented Flotilla II, which was near this part of the line, from effecting their deployment. Nothing could be seen from the flagship at the time of the German battle cruisers, which were steaming somewhat in advance of the column. In reality these ships, which had borne the brunt of the battle for three hours, had turned away from the enemy line by a simultaneous change of course to SE. at 7.26, since the hostile enveloping movement was accompanied by very heavy gunfire and numerous torpedo shots directed against the head of column. [In fig. 30 Scouting Division I should be in line rather than column.] At the same time Admiral Scheer received a radio from Flotilla V stating that, according to information obtained from prisoners rescued from the destroyer *Nomad*, there were 60 large enemy ships in the vicinity, among which were 20 new battleships and 6 battle cruisers. This report was soon verified when the van of the German column was surrounded on both sides by an unbroken line of ships, from which the flash of gunfire was observed. If the German fleet were held on course east, then the turning point of the fleet would be under the concentrated fire of the enemy line, which, as indicated by the gunfire now discernible, was gradually hauling past that point, thus putting the German fleet in a tactically inferior position. Meanwhile the wind had hauled around from WNW. to W., and then further to the left, so that the smoke clouds from the German ships passed over the leading ships of the line and then toward the enemy, obscuring the

latter, while the German ships stood out in the light background in bold relief against the sinking sun. For this reason, even though it were possible to pass the knuckle without serious loss, a running engagement on southerly course with the enemy fleet to the eastward could only prove very unfavorable from a gunnery standpoint. It seemed then to the German commander in chief that there was only one possibility of extracting himself from this situation; that was to turn his ships to the reverse course in order to give the ships at the head of the line and the accompanying destroyers a breathing spell, and then to renew the engagement from a more favorable tactical position. Between the decision and the execution of the maneuver the situation had become still worse.

At 7.36 the *König* was already on course south, following the movements of the battle cruisers. The rest of the ships of the fifth division were turning on course SE., while the rest of Squadron III were on course east and Squadron I was steering NE. The exemplary training in tactical maneuvers which the German fleet had received on the foundation laid by Grand Admiral von Koester gave Admiral Scheer confidence in the fact that the proposed maneuver could be executed without difficulty in spite of the elbow in the line and the heavy enemy fire. This confidence in his unit commanders and commanding officers was not misplaced. (In the English accounts—Jellicoe, *The Grand Fleet, 1914-1916*, p. 404, and Corbett, *Naval Operations*, Vol. III, p. 369—there is the tendency to represent that this maneuver, which was twice repeated with accompanying smoke screens and destroyer attacks, was one which was done with forethought and frequently practiced by the German fleet. It was supposed to be the maneuver by which, in any engagement with the British fleet, the Germans could escape from the enemy superiority as quickly as possible by renouncing their own effective fire during that period. Thus, the turn of ships right (left) on to reverse course was represented as being the general policy of the German fleet where a battle was pending. In reality the German battle plan was no other than the English; i. e., to advance in "approach formation," well extended, and swing the squadrons into battle line on contact with the enemy so that all broadside guns might be brought to bear on all ships at the same time and if possible from a tactically superior position. This was not possible in the foregoing case for reasons previously given, and Admiral Scheer had the sudden inspiration to make use of this simultaneous change of course as one of the many maneuvers in which the fleet had been exercised to meet the changing conditions in the course of an action. This was not done to break off the engagement, but to shift the fleet as quickly as possible in such a manner

that the engagement might be renewed from a more favorable tactical position.)

At 7.33 p. m., after the *Invincible* had been blown up, Admiral Scheer gave the following signal from the *Friedrich der Grosse*: "Turn together to the right to the reverse course." [Literally, "Battle turn about to starboard," i. e., "ships right about."] In accordance with the prescribed methods for the execution of this maneuver, Admiral Mauve, with Squadron II, should have initiated the turning movement, while the rear ship of Squadron I, the *Westfalen*, Captain Redlich, should have turned only after Squadron II had completed the maneuver. Since Squadron II had, however, not yet reached the general battle course of the fleet and was still steering a northerly course on account of the high speed and changes of course, Captain Redlich started the maneuver by turning the *Westfalen*, and, since the signal for course west was flying from the flagship, he took over the lead of the column on this course at 7.39. In the execution of this maneuver Squadron II was screened from the enemy by Squadron I, and the first intention of Rear Admiral Mauve was to swing into the rear of the column astern of Squadron III, but he decided against this, as it would then have interfered with the movements of the battle cruisers and flotillas which were then at the rear of the column. In making this change to course west the *Westfalen* brought the column into a straighter line than would otherwise have been the case. This corresponded to the wishes of the commander in chief, since, had the maneuver been executed as prescribed originally, the head of the column would have been still farther away from the enemy fleet, which was to the northward. While Rear Admiral Mauve was bringing his ships into position to close in the wake of Squadron I by increase in speed and on line of bearing, the ships of Squadron I had followed the turn of the *Westfalen* and were on course west within a few minutes. During this maneuver the fire on the *Warspite*, which had continued up to that time, had to be broken off. After the turn only the *Ostfriesland* was able to fire two salvos at that ship and then had to cease fire as the range increased from 12,500 to 16,000 meters. Before the *Warspite* finally disappeared in the mists she appeared to be steering a westerly course, and this fact created the impression on Vice Admiral Ehrhardt Schmidt, commander Squadron I, that the whole enemy fleet had also turned on the reverse course in order to follow the movements of the Germans. This observation was also made by Captain Heufer on the *Prinzregent*. That ship was also forced to cease fire after making the turn following the fleet flagship, as was the *Kaiserin*, when about 3,000 meters south of the *Wiesbaden*, after firing since 7.15 at a ship of the *King George V* class. After the turn the ships of the fifth division were in the midst

of as heavy a fire as before the turn, while the *König*, with her radio station out of action, did not receive the signal for this maneuver. When it was reported at 7.40 that the rear ship of Squadron I had turned and was flying the signal "course west," which was repeated by the other ships astern of the *König*, this ship also made the turn, and with increased speed closed up on the ships of the fifth division. In the execution of the maneuver the *Markgraf* was forced to stop one engine, since the bearings had run warm, and was able to resume station in formation only after extraordinary efforts. On the whole, this dangerous and difficult maneuver was completed by 7.45 without accident, thanks to the superb seamanship displayed by the commanding officers and the thorough training of the fleet.

On the battle cruisers the signal for change of course was received sooner than on the *König*, and at 7.38 the *Von der Tann* had turned to port through east to north, while the *Moltke*, *Seydlitz*, and *Derfflinger* turned to starboard in order to resume the reverse course astern of the *König*. Only the *Lutzow*, which since 7.37 could only steam at reduced speed, was unable to execute this maneuver and, turning off to course SW., sought to withdraw from the overwhelming fire to which she was being subjected. The *Derfflinger* was also forced to stop for two minutes in order to clear parts of the torpedo net which had been torn away by a shell and threatened to foul the propellers. At this time the *Seydlitz* was forced to steer most of the time from the steering engine compartment, as the many hits which the ship had received had jarred out the clutch which connected the steering gear to the bridge control. The leadership of the battle cruisers thereupon devolved upon Captain Hartog on the *Derfflinger*. Since all signal halyards on this ship had been burned or shot away and the signal searchlights damaged, the captain had no means of communicating orders to the other ships of the squadron.

Meanwhile Commodore Michelsen proceeded with the *Rostock* and the boats of Flotilla III and the First Half Flotilla to gain the lee of the fifth division. As stated previously, he recalled Flotilla III from the attack, which had been ordered at 7.32 upon noticing the new maneuver of the battle fleet in turning to course west, thinking that the main body would be in greater need of these boats at some future development of the battle, since Flotillas II, VI, and IX had already fired most of their torpedoes. Further, he had the feeling that the enemy would also change their course, with the result that a destroyer attack would then simply advance into open space or else encounter only enemy light forces. On learning later of the very favorable opportunity which had offered for attack he was of the opinion that the attack had better have been carried through in spite of the recall signal. At this time he was, however, compelled to take measures to save the hard pressed *Lutzow*. At

7.50 he therefore dispatched the First Half Flotilla under Lieutenant Commander Albrecht to that vessel and these boats arrived simultaneously with the *G-37* and *V-45* of the Twelfth Half Flotilla. In the midst of a very heavy enemy fire, the flagboat of the First Half Flotilla, *G-39*, Lieutenant von Loessen, went alongside the *Lutzow* and took off Admiral Hipper and his staff in order to bring him to another of the battle cruisers. At the same time the *G-40* and *G-38*, following the *V-45* and *G-37*, laid down a smoke screen in a very effective manner which screened the *Lutzow* from the enemy ships which were firing on her. But before this screen could become effective, the *Lutzow* received four further hits, which resulted in a number of casualties to her armament. The right side of the second turret was penetrated, damaging the loading gear and the right gun, while the explosion of a powder charge put the whole turret out of action temporarily. A further shot striking between the second and third turrets broke the electric leads to turret No. 4 so that the latter was forced to use the hand-operating gear. At 8.45 the *Lutzow* fired her last shot in the battle. At the same time the enemy ships which had been firing on her lost the target and were forced to cease fire, after which the ship was lost to view.

Shortly after the turn of the fleet the Sixth Half Flotilla, Commander Theodor Riedel, which was returning from attack with the *V-48* (Lieutenant Commander Eckholdt) and the *S-54* (Lieutenant Commander Karlowa), had encountered an English destroyer between the battle lines and had engaged this boat. In this action the *V-48* had received a hit which considerably reduced her speed. The enemy destroyer was sunk immediately thereafter by a shallow torpedo shot fired by the *S-54* at 4,000 meters [possibly this destroyer was the *Shark*], whereupon several British battleships opened a very heavy fire on the *V-48*. The *G-42* (Lieutenant Commander von Arnim), which had appeared and joined the action, tried in vain to take this boat in tow or at least to save the crew. This was impossible, and in order to save herself from complete destruction this boat was forced to leave the *V-48* to her fate in order to escape the fire from the enemy battle cruisers and battleships. Steaming at full speed toward the head of his own line, the commanding officer then saw that these ships were endangered by the heavy fire, and he therefore proceeded to lay a smoke screen between the lines to protect these ships during the execution of the maneuver.

This smoke screen mixed with the screen laid down by the boats in the vicinity of the *Lutzow* and soon had the desired effect. The rear ships of the German column, which were steering west, now had a breathing spell. Admiral Scheer then, at 7.48, changed course by divisions two points to starboard in order to approach closer to the

rear of the enemy line, which was still in sight up to the time of the fleet turn. [See the formation of the German battle fleet at 6.55 in fig. 35] At 7.55 the enemy fire on the German rear ships had noticeably weakened, and at the same time the battle cruisers again came into sight from the *Friedrich der Grosse*. The turn to the reverse course had therefore had the desired effect, and the commander in chief had again obtained the initiative.

On the English side the turn of the German fleet to the reverse course had been practically unnoticed, while in particular the two remaining ships of the Third Battle Cruiser Squadron had lost all contact with enemy battle cruisers after sheering out to port to avoid the wreck of the *Invincible*. It had been observed that one ship of the *Lutzow* class had sheered out of formation and was thought to have sunk shortly after. But, although shortly after this turn out, Captain Ellis had turned two points to starboard with the *Inflexible*, followed by the *Indomitable*, until they steered SE. at 7.45 in an attempt to renew the action, they did not sight the *Lutzow* again. On the other hand, Rear Admiral Napier, who, after the torpedo attack on the *Lutzow* at 7.35, was only about 10,000 meters to the northeastward of the German battle cruisers with the light cruisers *Yarmouth* and *Falmouth*, had noted the change of course of the German fleet to west shortly after the sinking of the *Invincible*. Apparently he did not consider this of sufficient importance to report, nor did he, as a result of the movement, attempt a torpedo attack, but seemed to be anxious only to resume his station at the head of his own column. Only in reply to a signal from Admiral Beatty at 7.40, "What is the bearing of the enemy battle cruisers?" did he reply that these had last been sighted at 7.30 turning to course west after the engagement with the Third Battle Cruiser Squadron. Meanwhile, the *Lion*, *Tiger*, *Princess Royal*, and *New Zealand* were forced to gradually diminish their fire, since the torpedoes fired by Flotilla III between 7.37 and 7.40 had caused them to sheer out of column. The last that Admiral Beatty had seen of the enemy was thus a very evident congestion at the head of the column in which the *Lutzow* had apparently turned to course SW. Even as the Germans had concluded from the course of the *Warspite* that the British had changed course to west, so Admiral Beatty came to the conclusion that the other battle cruisers had followed their flagship on this new course. He therefore changed course to SE. at 7.44, and further to SSE. at 7.48, and then still not finding the enemy in sight he made no further change to make a closer approach but at 7.50 signaled the Third Battle Cruiser Squadron to leave their advanced position near the enemy and to take position in rear of the *New Zealand* and to follow the forces

under his command. At 7.53 he reduced speed of the First and Second Battle Cruiser Squadrons to 18 knots in order not to increase the distance between his forces and the battle fleet, at the same time swinging to course south. At this moment, however, the gyro compass of the *Lion* went out of commission, causing the ship to describe a complete circle, thus delaying the advance of the whole battle cruiser squadrons to the southward by about seven minutes. [Note D, fig. 36.] At 8.01 the *Lion* was therefore again in the identical position she occupied before starting to change course to south.

As a result of the failure of the English light forces at the head of the column to fulfill their mission as a scouting force, Admiral Jellicoe was again forced to rely on his own observations for information at a critical point of the battle. During the few minutes in which most of the British battleships were firing on the enemy there had been at most three or four German ships in sight from the head and center of the column at any one time. Only the rear ships in the column had had a better view of the general situation. When the fire died out on the battle cruisers steaming about 3 miles to starboard ahead of the column it is no wonder that the battleships were unable to find any targets. Thus the *Iron Duke* had to cease fire at 7.36, the *Orion* at 7.37, and the *Marlborough* at 7.39. Only a few ships were able to fire after 7.40; these were *Neptune*, *Benbow*, *Canada*, and *Barham*, which fired until about 7.48 and 7.50, although spotting was impossible and the fire was intermittent. The observations of the enemy from the battleships were restricted by the fact that they had turned to starboard by a change of course of the division leaders and that the enemy ships had disappeared from sight. Further, the *Thunderer*, *Benbow*, and *Barham* believed they had seen a ship of the *König* class take fire and blow up at 7.50. From the above the only definite information available was that the enemy had made some sort of turn away from the British, but whether they had gone on the reverse course by a simultaneous movement, or the head of column had changed course to stand toward Helgoland was still doubtful. The only possible evolution which would have cleared up the situation for the British commander in chief and permitted him to hold the cap on the German fleet which he had so fortunately obtained would have been an immediate change of course of the battleship divisions toward the bearing of the enemy.

The fundamental policy of the commander in chief was, however, under all circumstances, and particularly in the opening phase of the engagement, to keep the center and rear ships of the battleship column outside the torpedo range of the German destroyers and battleships. He also believed, although erroneously, that all German battleships, as well as the cruisers, carried mines and that these

would be employed in any evolution where these ships turned away from the enemy. Further, he calculated strongly on the presence of submarines. Natural as would have been the decision to turn sharply toward the enemy and to follow them with the whole fleet, and much as this would have been in accordance with the best English naval traditions since the time of Nelson, such a maneuver seemed impossible to the British commander, owing to the important developments in mines, torpedoes, and submarines which, since that era, had increased the defensive armament of the weaker force. As early as October, 1914, Admiral Jellicoe had sent in a memorandum to the Admiralty, pointing out the changes in naval tactics required by the recent improvements in these new weapons. Thus, he did not believe it always possible to follow an enemy fleet in the direction chosen by the latter. "If, for instance," he continued, "the enemy battle fleet were to turn away from an advancing fleet, I should assume that the intention was to lead us over mines and submarines *and should decline to be so drawn.*" This statement of policy was thoroughly agreed to by the Admiralty, in which Lord Fisher had resumed his post as first sea lord. As a result of six months' war experience, this policy was fully confirmed, and on April 5, 1915, Admiral Jellicoe sent another supporting memorandum to the Admiralty on this subject. In general, the situation in which he now found himself did not differ materially from the hypothetical situation set forth in his communication to the Admiralty. In fact, he believed he had every reason to suspect the presence of submarines with the enemy fleet. He knew that quite a number of submarines were active in the North Sea, and, further, during the course of the action, ship after ship had reported enemy submarines. On the other hand, the clash with the German fleet had occurred so suddenly that there was some question as to whether the enemy had had sufficient opportunity to prepare such a submarine or mine trap for the British fleet.

Even if this were not the case, the other considerations still cast doubt on the advisability of following the enemy on their chosen course, while this decision was further strengthened by the fact that the British destroyer flotillas, the best protection against torpedo attack, were still attempting to reach their battle stations and were not available for a prompt counterattack. All plans for countering an evolution in which the enemy turned away under the protection of their torpedoes led to the same conclusion, "nothing but sufficient time and superior speed could bring a solution of the problem, and this meant that, if the contact of the fleets did not occur rather early in the day, it would be extremely difficult, if not impossible, to fight the battle through to a decision." The day was already drawing to a close, and thus the British commander in chief saw very slight possibility of winning a decisive victory in the action so for-

unately begun, owing to the turning away of the enemy fleet and the decreasing visibility. One other possibility existed by which the lost battle contact could be regained; that would have been to turn the fleet immediately to course west instead of toward the previous enemy bearings in order to secure the position to the northward of the German fleet. In that case, however, the enemy would have still attained an advanced position in which the torpedoes could be used with as much effect as in the other case. The only way in which these difficulties could be overcome would have been a division of the British forces based on an independent advance of the rear and leading divisions, which might have been able to hold the rear or the head of the German column in an artillery duel. In clear weather and with a longer period of daylight remaining, something might have been accomplished along these lines. On the other hand, it was actually so late in the day and the visibility conditions were so poor that there was the possibility that the enemy would be able to meet the attack of one of the detachments of the British fleet with his full strength. This decision was therefore rejected.

Admiral Jellicoe still did not know on which course the German fleet had withdrawn, but the most probable assumption was that Admiral Scheer had laid a course for the German Bight. For the British commander in chief there was, therefore, only one decision; that was to place his forces as quickly as possible across the assumed line of retreat of the enemy, since sooner or later these forces must be sighted from that position. •

At 7.44 he therefore ordered the battleship divisions to change course to SE. Shortly thereafter the *Marlborough*, leading ship of the sixth division at the rear of the column, was forced to sheer out of formation to avoid a torpedo, while at the same time a shock was felt on the *Revenge*, the next ship in line, as though a torpedo had struck without exploding. At 7.54, however, an explosion occurred on the *Marlborough* close under the forward bridge. [Note B, fig. 35.] In the forward fireroom the grate bars jarred off their supports, while water poured in from the lower bunkers through the damaged bulkheads and put five boilers out of commission. The Diesel engine and hydraulic pump compartments were also flooded and the ship listed 7° to starboard until the water could be controlled by the pumps and held at the floor plates of the firerooms, whereupon the vessel was again able to make 16 knots and resume station in the formation. At the time of this explosion the *Agincourt*, which was the rear ship of the division, reported an enemy submarine, while at 8 p. m. the *Marlborough* sighted the tracks of three further torpedoes. It was difficult to determine from which

direction these had been fired. Immediately before the explosion no torpedo track had been seen, so that the damage was believed to have been caused by a mine; but since the *Wiesbaden* was then being passed about 8,500 meters abeam, this vessel was then suspected of having fired the torpedoes, although that cruiser had already been subjected to the fire of the entire British column. Since the English destroyer *Acasta* drifted past in a helpless condition at this time, the *Wiesbaden* was at first thought to be an English cruiser by the sixth division, but finally the *Marlborough* opened fire on this brave but unfortunate German cruiser. The third and fourth salvos fired split the whole side of the ship open to the water line and both stacks went by the board. At 8.10 the *Marlborough* also fired a torpedo at the *Wiesbaden*, whereupon this cruiser drifted past, a burning wreck, until the flames reached the water line and were extinguished. But even this destructive fire had not caused the cruiser to sink. Meanwhile the *Colossus* had suddenly sighted an approaching German destroyer, which finally disappeared in the midst of a heavy fire from that ship at a distance of about 3,600 meters. Since no other German destroyer was so close to the British line at this time, it could only have been the *V-48*, Lieutenant Commander Eckholdt, of Flotilla III, which, lost from her flotilla, had decided to sacrifice herself as dearly as possible in the face of certain destruction. This destroyer probably made the hit on the *Marlborough*; if the shot did not come from the *Wiesbaden*. [While no one can ever decide to what ship can go the credit of hitting the *Marlborough*, which had immense results during the coming night, the German historian shows excellent taste in dividing the credit between these two heroic German ships.]

This sudden burst of gunfire from the sixth division had again directed the attention of Admiral Jellicoe to the rear of his column. At 7.50 he sent a signal to Vice Admiral Burney, the commander of the rear squadron, asking if any enemy capital ships were in sight. As he learned that this was not the case he believed that he had hauled out enough to the eastward in order to proceed with safety and could now place his forces on the line of the enemy retreat. At 7.55 he therefore ordered the leaders of the battleship divisions to change course four points to starboard and signaled the battle cruisers that the course of the fleet from that time on was south. At this time the *Iron Duke* passed the wreck of the *Invincible*, a terrible sight, which was only somewhat mitigated by the fact that most of the British ships thought that this was the wreck of a German battle cruiser.

At 8 p. m. the artillery duel at the rear of the line was renewed with increased intensity, as coincidentally with the change of the

British battleship divisions to course south the German fleet had begun a new surprise attack.

As Admiral Scheer withdrew from the enemy enveloping movement of his head of column by the reversal to course west at 7.35. he supposed that the enemy, hesitating to give up the tactically superior position which they had attained, would make a sharp approach to follow this movement. When, contrary to expectation, this did not occur and, instead, the enemy fire gradually died out. Admiral Scheer was inclined to attribute this to the heavy losses the enemy had sustained in the early part of the action rather than to the smoke clouds which lay between the lines. Based on the rather uncertain observations, it was believed that the enemy losses, resulting from the class of the fleets, consisted of one ship of the *Queen Elizabeth* class (*Warspite*), one battle cruiser (*Invincible*), two armored cruisers (*Black Prince* and *Defense*), and two light cruisers lost, while one armored cruiser (*Warrior*), three light cruisers, and two destroyers (*Shark* and *Acasta*) must have been severely damaged. On the other hand, the German losses were *V-48* missing, while *Wiesbaden* lay disabled between the lines and the *Lutzow*, with Admiral Hipper on board, had disappeared from view from the flagship. The other battle cruisers, as well as the *König*, appeared to have sustained severe casualties but were able to keep their station in the formation.

Scarcely had Admiral Scheer regained freedom of action, therefore, when he, far from desiring the termination of the battle but encouraged by the successful execution of the turning evolution, decided to approach for a second attack. At 7.45 the *Moltke* reported that the enemy head of column was bearing east by south. There was still an hour before sunset and in that high latitude the long twilight would hold some time longer before darkness finally put an end to the capital-ship engagement. If he held the course taken after the turning evolution, and the enemy followed this movement, the resulting action would take on the character of a retreat, with all the disadvantages attending such a maneuver. Entirely aside from the question that in such an event the ships with reduced speed might have to be abandoned, the enemy might be able to force an action before dark and, depriving the German fleet of the initiative, be enabled to cut off the line of retreat to the German Bight. (Scheer: *Germany's High Seas Fleet in the World War*, p. 225; and Report to the Kaiser, p. II.) In order to counteract this there was only one means available in the opinion of the German commander in chief—"To strike another blow at the enemy by means of an energetic advance and to drive home a powerful destroyer attack. The maneuver must surprise the enemy, shatter

his plans for the remainder of the day, and, if the blow were delivered with full strength, facilitate the escape during the night. Further, there was the possibility of making a last attempt to bring assistance to the hard-pressed *Wiesbaden*, or at least to rescue the crew."

While the envelopment of the German head of column, which had occurred at 7.30, was the result of peculiarly fortunate circumstances for the English and had caught the German commander by surprise, this time the latter had determined on another attack with full strength directed against the middle of the enemy column in the full knowledge that this would expose him to the danger of the enemy "crossing the T" for the second time.

The reasons for this decision were almost the same as those which influenced Nelson at Trafalgar. The latter wrote: "I think it will surprise and confound the enemy. They don't know what I am about." The coincidence was entirely accidental. Admiral Scheer was by no means inclined to follow blindly the experience of Lord Nelson, and this would have been a false analogy under the entirely different battle requirements of modern times. The decision corresponded more to the intuition of the moment, and was so bold and keen, as well as against all rules of the game, that only success could justify the maneuver. On the English side there has been, therefore, a tendency to underrate the fundamental reasons for this decision of the German commander. (Narrative of the Battle of Jutland, No. 41. Corbett: Naval Operations, Vol. III, p. 375.) They held that Admiral Scheer had reached this decision as a result of the surprise attack of the Third Battle Cruiser Squadron, which was detached from the fleet, and that he had made a grave error in regard to the position of the British fleet as a result. They assumed that he expected to be able to pass this fleet to the northward and then from a position to the eastward to resume the engagement favored by the dark horizon under better conditions of visibility, and combined with destroyer attacks to force the enemy to the westward and safeguard his retreat toward Horn Reef. They further assumed that the appearance of the Fifth Battle Squadron to the northward had led him to believe that the British fleet had been divided and that, with such a maneuver, a part of the fleet could be cut off.

None of these assumptions were true, and, brilliant as the last-mentioned plan might have been, these critics forget that such a decision would have necessitated a much more comprehensive view of the situation by the German commander in chief for its execution than was actually the case. This criticism, based on a study of the charts after the event, must be designated as a purely theoretical construction and does not represent the true situation of the

German commander, who was forced to make decisions of the most far-reaching importance in a few minutes in the midst of the greatest uncertainty. [The above is considered excellent comment.]

As early as 7.50 Admiral Scheer had changed course of the battleship divisions two points to starboard in order to approach the enemy. At 7.55 the signal was again flying from the fleet flagship for a turn together to the right to the reverse course, i. e., ships right about, an evolution which again had to be performed with the column of ships in a curved line. At the same time the flagship ordered Commodore Michelsen to send destroyers to the *Wiesbaden*, as this maneuver now appeared possible owing to the pause in the actual fighting. By a coincidence this order was given at exactly the same time that the British fleet, 10 miles away, was changing course of the divisions to south after the first crossing of the T. At the rear of the line, the Second Light Cruiser Squadron was the only one of the British scouting forces which had been trying since 7.47 to approach the German line, in order, as Commodore Goodenough, its commander, wrote later in his battle report, "to observe the enemy's rear more clearly, their course being in doubt." [Note B, fig. 37.]

Scarcely had the German battleships executed the battle turn to the rear, in which Admiral Behncke, on the *König*, had placed his ship again at the head of the column and reduced speed in order to permit the other divisions to close up on the van and at the same time to give the battle cruisers an opportunity to resume station in advance of the line, when a number of cruisers with four stacks came into sight through the heavy smoke cloud to the northward, apparently for the purpose of making a new attack on the *Wiesbaden*, turning, at 8.05, to an easterly course. At the same time Captain Hartog turned to place his ship at the head of the battle fleet, followed by the other battle cruisers without signal, as these had scarcely noticed the evolution of the battleships. He thereupon turned toward this enemy detachment on a northerly course. At 8.05 the *Markgraf* opened fire on these enemy light cruisers followed, at 8.07, by the *Derfflinger*, *König*, and *Grosser Kurfürst*, and immediately thereafter in the gathering twilight, by the *Kaiser* and *Prinzregent*, at ranges from 9,000 to 16,500 meters. Thus the *Southampton*, which was at the head of this light cruiser squadron, was soon in the midst of an overwhelming fire. But before turning off with the other light cruisers to join the rear of the battle fleet the mission of this force had been accomplished, and before the German battle cruisers opened fire Commodore Goodenough was able to send a radio, reporting that the German battle fleet was in sight from the *Southampton*, bearing SSW. and

steering ESE. At the same time Admiral Beatty reported that he had also sighted the German battle cruisers bearing west of his position. Both of these messages seemed to Admiral Jellicoe to justify his previous movements with the fleet. At 8.05, as the German battle cruisers opened fire on the Second Light Cruiser Squadron, he held the time propitious to make a change of course of the columns of divisions from S. to SW. by S. in order to approach the enemy column on a sharp line of bearing. [Note A, fig. 38] At this time, however, the *King George V*, which was at the head of the battle fleet, and the *Duke of Edinburgh*, which was about 3.5 miles to port of the fleet flagship, each reported sighting a submarine. Further, mistaking the purpose of Flotilla III, attempting to rescue the crew of the *Wiesbaden*, it appeared to the British that a destroyer attack was being directed at the line from the southwest.

Thereupon Admiral Jellicoe, not considering that these were only a few more of the numerous false alarms of sighting submarines which had occurred repeatedly throughout the day, ordered the divisions to resume course south at 8.09, first in order to turn toward the reported submarines and in the second place to assume a more favorable formation than a sharp line of bearing to enable the broadside batteries to counter the expected destroyer attack.

While these new evolutions were disturbing the British formation on account of the increase and decrease in speed at various places in the line, and the sixth division was still firing on the *Wiesbaden*, the rear ships of the *Colossus* division, and then gradually other ships in the line, began to sight the German battle cruisers, accompanied by destroyer flotillas, appearing through the smoke, while later the vague outlines of three or four battleships appeared faintly in the mists. Therefore, beginning with the rear ships of the column and followed gradually by all the ships of the line, the British began to open fire on the German fleet until a few minutes later even the ships on the southern flank had joined in the fire with main and secondary batteries. The German leading ships returned the fire.

At 8.04 the *Neptune* and *St. Vincent*, the third and fourth ships of the *Colossus* division, fired at a range of 9,200 meters and from four to six points on the starboard bow on the *Derfflinger* and *Moltke*, respectively, while *Revenge*, the second ship of the *Marlborough* division, also fired on the *Derfflinger*. After the second salvo of the *Revenge*, flames were seen spurting out of the after part of the German leading battle cruiser, while the third and fourth salvos of the *Neptune* were also straddles. The *Revenge* thereupon shifted her battery to the *Von der Tann*, leaving the leading ships to the other vessels in the line.

At 8.06 the *Agincourt*, rear ship of the *Marlborough* division, opened on one of the battleships, probably *König* or *Grosser Kurfürst*, which was just coming into view astern of the battle cruisers at a range of 10,000 meters, but was forced to cease fire after the fourth salvo in order to sheer out to avoid a torpedo. This may have been fired by the *V-48* or the *Wiesbaden* and was erroneously attributed to a submarine. The guns of the Fifth Battle Squadron, which had gotten into the lee of the sixth division on account of the latter sheering out to avoid torpedoes, were forced to remain silent. At 8.10, however, the *Valiant*, followed by the *Barham* and *Malaya*, were able to open fire on the German battle cruisers and battleships with their 38-cm. (15-inch) guns. At the same time the *Revenge* fired 10 salvos at the *Von der Tann*, and at 8.15 also fired a torpedo at this ship. Meanwhile the *Marlborough* had fired no less than 14 salvos in six minutes from 8.12, at a range of 9,300 meters, at a ship of the *König* class, although several gun charges were jammed as a result of the list of the ship. After the sixth salvo a considerable smoke cloud was observed near the foremast of the ship on which she was firing, while during the twelfth, thirteenth, and fourteenth salvos it was clearly observed that two shells struck under the bridge and at the water line. At the same time the *Hercules*, third ship of *Marlborough* division, fired at 8,200 meters on the second of a number of battle cruisers which were visible just ahead of the ships of the *Kaiser* class (*Seydlitz*). The *Hercules* thought that hits were made on the third and fourth salvos. From 8.13 to 8.20 the *Iron Duke* also fired on a German battleship at 14,000 meters before shifting fire to a battle cruiser. On the other hand the *Ajax*, second ship of the leading division, lay short with her salvos at 17,300 meters and was forced then to cease fire on being blanketed by the Fourth Light Cruiser Squadron. The German ships were in such a very unfavorable position as regards visibility in this phase of the battle that they could return only a weak fire to the very effective fire of the British. Only a few shells struck near the *Hercules* and *Agincourt*, while the *Colossus*, which was nearest the enemy and maintaining a heavy fire on the *Derfflinger* from 8.12 to 8.20, at ranges from 8,200 to 7,700 meters, was struck once, probably by a shell from the *Seydlitz*. After four salvos had landed just short of the British ship, a shell struck astern of the afterstack at 8.16, which destroyed the upper works and set fire to several powder charges of the secondary battery. Also, a shell in the fourth salvo, which struck short and exploded, sent splinters through the forward stack and chart house and wrecked a searchlight.

The British ships, therefore, felt themselves less endangered by the German gunnery in this, for them, very favorable phase of the battle, than by the destroyers, which, according to their observa-

tions, were massing for attack. Against these they directed the fire of their secondary batteries and later even the main batteries. What they mistook for a torpedo attack was, however, the attempt of four boats of Flotilla III to rescue the crew of the *Wiesbaden*. Scarcely had these boats broken through their own lines between the fifth and sixth divisions to carry out this order when the leading German ships opened fire on the enemy ships on the other side of the *Wiesbaden*, while the latter ship herself lay in the midst of very heavy enemy fire. Then one salvo after another which was fired at the German battleships by the enemy struck close ahead of the destroyers. Soon this enemy fire was concentrated on the advancing boats themselves. Had the attempt to rescue the *Wiesbaden's* crew been carried further, the boats would not only have hindered the fire of their own ships but would have been exposed to certain destruction without accomplishing their mission. A further advance of these valuable boats, which still had their torpedo armament intact, seemed futile, and the flotilla commander, Commander Hollmann, did not believe he could accept responsibility for such action. With a heavy heart he decided, therefore, to abandon the attempt to rescue the crew of the *Wiesbaden*. But in turning away toward their own line, the U-73 (Lieutenant Commander Delbruck) fired one torpedo, and the G-88 (Lieutenant Commander Scabell) three torpedoes at 6,000 meters at the second and third of a group of capital ships, which were thought to be battle cruisers: in reality, they were ships of the *Colossus* and *Marlborough* division. [Note A, fig. 39.] At 8.05 the *Colossus* had been firing with one main battery turret on a group of destroyers which appeared to be approaching at a great distance behind the U-48. At 8.09 the *Benbow* and *Bellerophon*, leading the fourth division, fired with main and secondary batteries, at a range of 7,300 meters, at these boats, while at 8.10 the *Neptune* also joined in this fire with a salvo from her main battery until the 10.2-cm. guns could be manned and continue the fire. At 8.11 the *Iron Duke*, leading ship, and the *Canada*, rear ship of the third division, fired, at 6,000 meters, with the secondary battery at these destroyers. All of these ships believed they had made hits and thought they observed one of the boats sink.

As previously stated, two of the boats of Flotilla III had fired torpedoes in spite of the heavy torpedo defense fire, and soon thereafter the *Neptune*, third ship of the *Colossus* division, sighted the tracks of three torpedoes of which one passed so close to the ship that it could only be avoided by a turn with hard over rudder. As the following ship, the *St. Vincent*, held her course, the *Neptune* was overlapped by the former and forced to cease fire. At the same time Admiral Sturdee's division, headed by the *Benbow*, turned

ships left two points in order to avoid torpedoes reported by the *Neptune*.

In the sudden renewal of the artillery duel at the rear of the line these ships were soon completely enveloped in smoke. Admiral Jellicoe could therefore only make out the faint outlines of the ships of this division to the northwest of his position and was unable to obtain an insight into the true situation. He was able only to ascertain the fact that the *Colossus* lay in the midst of heavy enemy fire and that enemy destroyers were attacking. He believed, however, that the rear division was sufficiently endangered to order the commander of the latter, Admiral Burney, to turn his division away from the enemy at 8.12 and to place them on course south in rear of the *Iron Duke* division, which he himself was leading. [Note B, fig. 39.] As Admiral Sturdee noted this maneuver, instead of returning to the original bearing with his division after turning ships left to avoid torpedoes, he followed the orders issued for the first squadron, and in turn placed his own forces in column in the wake of the *Iron Duke* division. Scarcely had this phase of the action begun under the most brilliant auspices for the British when the appearance of a few destroyers sufficed to influence Admiral Jellicoe to withdraw the division which stood in the most favorable tactical position for effective fire on the enemy. Even the Fifth Battle Squadron under Admiral Evan Thomas followed this movement away from the enemy, although nothing should have hindered this fast and independent force from making use of its superior position to make an even sharper approach on the enemy. The loss of the radio stations on the *Barham*, flagship of Admiral Thomas, probably influenced this maneuver. At least Admiral Jellicoe was determined, however, to bring the two southerly divisions of the Second Battle Squadron closer to the enemy. He therefore ordered its commander, Admiral Jerram, to turn ships right at 8.16 in order to place his squadron ahead of the *Iron Duke* division and on the same course. [Note F, fig. 40.] If this evolution were successful, then the British fleet would be in column on course south and in position to assume the tactical superiority by a second "crossing of the T" ahead of the German column.

But before this maneuver of the Second Squadron could be executed, this clever tactical evolution of the British commander in chief was brought to naught by a drastic counter attack of the battle cruisers and destroyers, which was ordered by Admiral Scheer.

Even at this time, the fire superiority of the British line against the German battle cruisers and *König* division, had not reached its height. At 8.14, the *Orion* and *Monarch*, leading the second division, were able to join in the fire while, at 8.17, they were followed by the *King George V* and *Centurion*, leading the column, as well as the *Benbow*, *Bellerophon*, and *Temeraire* of the fourth division.

Of these, the first two each fired from 8.14 to 8.20 on the *Derfflinger*, five to six salvos, at from 15,500 to 17,300 meters, while the *King George V*, firing at the same target at 10,000 meters, fell short with her salvos. At the same time the *Centurion*, which was following the *King George*, fired at a ship of the *Kaiser* class at 16,000 meters and observed that the latter was surrounded by destroyers and had either reduced speed or stopped. At 8.24, the *Marlborough* fired a torpedo at a ship of the *König* class. The other ships in the line were firing on the battle cruisers. As though this were not sufficient, the splashes of heavy caliber shell near the head of the German column awakened the impression that a new detachment of enemy forces was attacking from starboard. In reality, these were Admiral Beatty's battle cruisers. At 8.10, as the battle cruisers came into action, this force was about 8 miles SE. of Admiral Burney's division and 3 miles to port and ahead of Admiral Jerram's leading division and had then increased speed and hauled around on course SW. by W. In spite of this, they were 5 miles farther away from the German head of column than the *Colossus* division had been before being withdrawn. Meanwhile, the setting sun had disappeared behind the cloud banks and visibility conditions were so much improved that the *Lion* was able to distinguish enemy ships to the WNW., distant about 16,500 meters, and was able to open fire on the German battle cruisers, followed by the *Tiger* and *Princess Royal*. [Fig. 20 shows the B. C. F. reopening fire on the enemy.] At the same time, Admiral Beatty increased speed in order, if possible, to cut off the ships just sighted, which he held to be the advanced squadron of the enemy line.

Thus, from 8.12 p. m., the German leading ships found themselves subjected to a fire, increasing in intensity, while nothing was to be seen of the enemy but the flash of gunfire. As far as it was possible to judge, the enemy line extended from NNE., in a large arc, through east to SE., while their fire was concentrated on the German battle cruisers and the ships of the fifth division, which, apparently, made excellent targets as indicated by the position of the splashes and rapidity of fire. An attempt, on the part of the *Kronprinz*, to measure the range on the flash of enemy gunfire, was unsuccessful. The fire could be returned only very weakly and with constant interruptions even by the ships which were able to fire at all from their very unfavorable positions. Thus, the general situation at 8.14 might be characterized as the most unfavorable during the entire battle. The enemy fire from ahead raked the entire length of the German line and, under this, the fifth division began to suffer considerably, since the reduced speed, at which the battle cruisers were steaming across at the head of the line, caused a congestion at the head of column so that the sixth division was

partly forced to stop and even back. These ships, therefore, lay close together with practically no way on and offered the enemy an excellent target. The *König* had been forced to turn to course SE. in order to bring her broadside to bear on the enemy and it began to appear as though severe losses would be unavoidable in the further course of the action. Thereupon, Admiral Scheer decided to attack with the battle cruisers, without regard to the possible losses, so that, with their help, the mass attack of torpedo boats could be brought as close to the enemy line as possible while, under the protection of this maneuver, the Battle Fleet could be turned for the third time on the reverse course and thus withdrawn from the enemy envelopment for the second time.

At 8.13, the signal was hoisted on the *Friedrich der Grosse*, which has since become of historical importance. "battle cruisers turn together toward the enemy: attack with full strength." Three minutes later (8.16) the signal was made for the battleships: "Turn together to starboard to reverse course," i. e. "ships right about."

The execution of this maneuver was somewhat more difficult than the first time, as the fleet was so close to the enemy and exposed to the full effect of their combined fire. Since 8.10 the *König*, leading the battleship column, had been in the midst of extremely heavy fire, while the *Helgoland*, which was the fourth ship astern of the *Friedrich der Grosse*, had been hit, at 8.15, by a major caliber shell which gouged a hole one-half meter in diameter out of an armor plate near the bow. At the time the signal was made to change course the *König* was further endangered by the gas and smoke as a result of a direct hit behind turret No. 3. Although the *Kronprinz* and *Markgraf* were undamaged, the *Grosser Kurfürst* was hit no less than four times inside of two minutes by 38-cm. shell.

In order to expedite the evolution, Admiral Schmidt, commanding Battle Squadron I, started the turn with his flagship, *Ostfriesland*, although the prescribed method of performing this maneuver required that he start the turn only after the rear ships of the squadron had made the turn in order to reduce the danger of collision. At the same time the commander in chief instructed the commanding officer of the *Friedrich der Grosse* to turn to port in order to make room for the turn of the closely crowded fifth and sixth divisions in their turn to starboard. The units of the latter divisions were crowded in so close to each other that they were in a critical condition under the heavy enemy fire. Before the turn the *Kaiserin* was so close to the ship ahead and steaming so slowly that she was forced to sheer out to starboard. After the turn,

when she was again forced to slow down in order to increase distance from the *Ostfriesland* and make room for the *Friedrich der Grosse* which had turned to port, the *Prinzregent* approached rapidly on the starboard hand so that it was some time before the *Kaiserin* could regain position in formation astern of the fleet flagship. The *Markgraf* also turned before the *Kronprinz*, which was next astern, and for a time held off to the southward, out of formation, in order to avoid the turning point which was under concentrated fire from the enemy. Since the port engine of this ship was out of commission, the commanding officer, Captain Seiferling, deemed it necessary to get clear of the unfavorable line of bearing, *König—Kronprinz*, as soon as possible, in order to obtain sea room on the new course and be able to hold his ship in formation in spite of his reduced speed. As a result, the *Grosser Kurfürst* was forced to steam SW. parallel to the *Markgraf* until the latter was able to sheer into column behind the *Kaiserin* and *Grosser Kurfürst* between *Kronprinz* and *König*.

Thus, the ships of the fifth and sixth divisions, as well as the fleet flagship, were forced to steam practically on line of bearing, at reduced speed, in a very cramped space during an extremely dangerous period. Once again, it was due to the brilliant seamanship and training of the admirals and commanding officers that neither the turn of the fleet flagship to port was misunderstood nor collisions resulted. Fully realizing the danger of the situation, Captain Brunnghaus, commanding the *König* placed his ship 400 meters to leeward of the formation and laid a smoke screen between his fleet and the enemy line, although his own vessel was under straddling salvos. Even during the turn, the ships of the fifth division were for some time under a very effective fire that was apparently being directed on them by Admiral Beatty's squadron. A large number of shell struck so close to the *Kronprinz* that violent shocks were felt throughout the ship, although no direct hits were made. At 8.25, the *Kaiser* fired her last salvo at 16,000 meters on the starboard quarter. At the same time a full salvo struck near both sides of the ship, splinters striking the outer hull and damaging the torpedo nets and living quarters, but only one shell made a direct hit—penetrating the casemate armor and exploding in the hammock nettings. At 8.28 the commanding officer, Captain Count von Keyserlingk, ordered a smoke screen, since the enemy were still finding good targets in the German line, while they themselves remained invisible except for the flash of their guns. At 8.35 the *Markgraf* was hit by a major caliber shell which put one of the port 15 cm. casemates out of action. Aside from these casualties after the turn, the attack of the battle cruisers and torpedo flotillas was bringing a very marked relief for the fleet.

On the signal "close with the enemy" the *Derfflinger*, *Seydlitz*, *Moltke*, and *Von der Tann*, under Captain Hartog, von Egidy, von Karpf, and Zenker, proceeded at full speed toward the enemy, which were surrounding them on a wide arc and firing from all guns. The attack was carried out in compliance with the orders without regard for losses, in spite of the fact that these ships had sustained severe casualties to the greater part of their armaments and in some cases had been badly damaged. Since 8.13 the two leading ships in particular had been hit time after time. On the *Derfflinger* the entire port 15-centimeter battery had already been put out of action when a 38-centimeter shell penetrated the roof of No. 4 turret at the joint between the vertical and inclined armor plates over the right gun, turning the turret completely around to port and exploding several charges of powder in the right hoist and handling room. The gases and flame which filled the turret as a result of this explosion killed all 75 men in the crew with the exception of a single man. These gases spread through the voice tubes to the central station and forced the personnel to abandon the latter for 10 minutes after the switches had been thrown to permit the fire-control system to function. The station could be manned only after the crew had put on gas masks. Immediately thereafter the *Seydlitz* was hit aft by a major caliber shell.

The course of the battle cruisers, however, still conformed to the signal to close with the enemy, and they had attained a position 7,000 meters from the *Colossus* division—a very short range for capital ships where no armor offered protection against enemy shell—when at 8.17 the *Derfflinger* received a signal from the fleet flagship (sent at 8.14) to operate against the head of the enemy column. Thus Admiral Scheer considered the difficult mission of the battle cruisers to have been practically fulfilled. [Admiral Scheer's part in the so-called "death ride" of the battle cruisers has certainly been exaggerated. The battle cruisers, as shown by the official German charts, were already steering east directly for the enemy at 8.13, when Scheer made his signal to close with the enemy. The author now states that at 8.14 Admiral Scheer considered the difficult mission of the battle cruisers to have been practically fulfilled, i. e., in one minute. Scheer therefore directed them to operate against the head of the enemy column, which message was received by the *Derfflinger* at 8.17. But the *Derfflinger* at 8.15 had already changed course 90° to the right to parallel the British fleet. Thus the battle cruisers really paid no attention to Scheer's signals: They were already closing before he ordered them to, and they turned away before they received his second signal. Both his signal and the

conduct of the battle cruisers by Captain Hartog were splendid, but unfortunately there was no connection between them.】 Captain Hartog turned his ship to course S. by E., parallel to the enemy line and was thus able to bring his broadside and torpedoes to bear on the nearest enemy ships. *Seydlitz* and *Moltke* were able to pass the turning point without being hit, and only the *Von der Tann* was struck during the turn at 8.19 by a heavy shell from the port quarter, which hit the lower part of the after conning tower, while a torpedo fired by the *Revenge* at 8.15 was avoided by change of course. 【See fig. 40, which shows the crowded interval from 7.15 to 7.20.】 Splinters from this shell passed through the slits of the afterfire control tower, killing the third gunnery officer, Lieutenant Commander Langheld, both rangefinder operators and range transmitting crew, and severely wounding all others in that station, including the second torpedo officer, Lieutenant Plum. The greater part of the explosive force of the shell was exerted outside the armor of the main deck and spread through the gun deck and ventilating system to the starboard engine room, where parts of the fragments and wreckage lay on top of the condenser. The lights were extinguished and the starboard engine room filled with gas and smoke.

But disregarding the devastating fire of the enemy which these battle-proven German cruisers could scarcely return on account of the poor visibility conditions, they were still able to form column close to the enemy line and steaming between the latter and the rear of their own battle fleet to cover the rear battleships in their maneuver. At 8.20 they then followed the movements of their own fleet by a simultaneous change to WSW. and then to west, in order to reach the head of their own column by the shortest route. In turning away the *Derfflinger* once more came into the midst of a heavy fire. At 8.23 a 38-cm. shell from the port quarter struck the barbette of No. 3 turret and detonated between the two guns under the turret captain's platform. In this case the shell also exploded the powder charges and killed the entire turret's crew with the exception of five men. All machinery spaces were filled with smoke and gas, when two further shells pierced the forward stack and another the after stack. Further the forward conning tower received a direct hit by a 30.5-cm. shell at the same time. Yellowish gases entered the fire-control station through the slits, but the force of the explosion and the splinters did not damage the armor so that the fire control and ship control continued to function without interruption.

While the magazines of turrets 3 and 4 were flooded, the after torpedo compartment filled with water, and the steering engine room and port engine room were filled with poisonous gases.

After this the enemy fire weakened considerably, owing to the smoke screens laid down by the German destroyer flotillas and Scouting Division II, which was to the southwest of the battle cruisers. The *Seydlitz* was hit at 8.27 by a further shell which put the right gun of the after turret out of action, while another shell damaged a 15-cm. casemate gun; but the other ships, in particular *Von der Tann* and *Moltke*, escaped without further damage. Soon after, there was a lull in the battle as the attention of the enemy was then concentrated on the mass attack of the destroyers.

As Admiral Scheer stood away from the enemy at 8.00 p. m. in order to make his approach for a second attack on the enemy line, Commodore Heinrich, second leader of destroyers, was able for the first time to reassemble his flotillas near his own battle cruisers and his flagship *Regensburg*. This vessel, with Flotillas VI and IX, had just returned from the attack on the enemy Third Battle Cruiser Squadron, while Flotilla II, returning from the attack on the *Canterbury* and enemy destroyers, was still somewhat in rear of Scouting Division II. But the Twelfth Half Flotilla had remained divided between the *Lutzow* and Flotilla II so that Flotilla VI could assemble only four boats. Flotilla IX now comprised only nine boats, after the loss of the *V-27* and *V-29* and had already fired a part of their torpedoes. Flotilla III had reassembled on the *Rostock*, the flagship of the first leader of destroyers and after the vain attempt to rescue the crew of the *Wiesbaden* was at that time to starboard and ahead of Battle Squadron III. In this Flotilla two boats *S-54* and *G-42* had not rejoined after the attack so that the flotilla now comprised only four boats.

As the intensity of the enemy gunfire increased against the leading ships and the *Regensburg* herself was under heavy fire, it appeared as though the enemy had received reinforcements in the northeast as indicated by the flashes of shells. The situation seemed to the leaders of the destroyers to be so critical for the ships at the head of the column that an attack with all flotillas appeared to be the only means of saving these ships from the destructive fire of the invisible enemy. This decision had hardly been reached when orders were received from the commander in chief for the flotillas to attack. At 8.15 Flotillas VI and IX started the attack on course ESE., followed at 8.23 by Flotilla III, which passed through the ships of the Battle Fleet. [These 3 flotillas totaled only 17 boats.] The first group was accompanied up to the *Derfflinger* by the *Regensburg*, which then turned off to bring Flotilla II to attack, while the battle cruisers turned to the southward. Soon Flotillas VI and IX had disappeared in the smoke screen, which had been laid by the destroyers near the *Lutzow*.

As these first two flotillas passed through the smoke screen they were confronted by a sight which had been granted none of the other German ships up to that time. On the arc of a large circle an iron ring of about 24 battleships were seen on course ESE. and SSE. accompanied by numerous light cruisers and destroyers. This force was enveloping the head of the German column and their guns were vomiting death and destruction. As Flotilla VI, Commander Max Schultz, approached through the straddling salvos to within 7,000 meters, a shell struck the forecastle of the *G-41* (Lieutenant Commander Boehm). Two officers and two men on the bridge were killed by the splinters. At the same time the *G-86* (Lieutenant Commander Grimm) was hit. At 8.25 a major caliber shell struck close to the bow of the boat while the splinters wounded the commanding officer and nine men, penetrated the radio room, the bridge, and the steering compartment, damaged the head of a torpedo in the forward tube and pierced the forward fuel oil tanks, causing the latter to leak. Since the flotilla might be destroyed at any minute, it was essential that the torpedoes be fired before it was too late. Thus, the flotilla commander turned away to fire immediately after the *G-86* and *G-41* had been hit. With his last remaining strength the severely wounded torpedo officer of the *G-41*, Lieutenant Wagner, personally fired two torpedoes, while at the same time the other three boats of the Eleventh Half Flotilla each fired three torpedoes under very favorable conditions for a hit on the enemy line. [Note E, fig. 41.]

All of these boats were able to return to their own line under the protection of a heavy smoke screen although the *G-86* could only steam at 25 knots and the *G-41* was forced to reduce speed even more. For a while this smoke screen from Flotilla VI covered the boats of Flotilla IX which was attacking further to the northward; but as the latter broke through the screen it appeared as though the enemy had ceased fire on the German battle cruisers and was concentrating on the flotilla. As the flotilla leader *V-28* was hit near the bow after approaching to within 7,000 meters, it was high time to turn off for the torpedo shot before the boats were put out of action. In spite of the devastating enemy fire all the boats were able to fire their torpedoes.

V-28 turned off but could fire only one torpedo as the second stuck in the tube. The *S-51* and *S-36* could each fire only one torpedo, while the *V-26*, leader of the Seventeenth Half Flotilla, fired two, but had to hold the third shot as the smoke obscured the target and the *S-52* was in line of fire. The remaining boats each fired three torpedoes, although they were in the midst of a heavy fire, at ranges from 6,000 to 7,000 meters. The entire nine remaining

boats of Flotilla IX attacked. *V-28*, the flotilla leader, fired 1 torpedo, the 4 boats of Seventeenth Half Flotilla, 7 torpedoes, and the 4 boats of Eighteenth Half Flotilla 12 torpedoes, or a total of 20.]

These boats then escaped, by means of an artificial smoke screen, the pursuing enemy cruisers and destroyers which broke through the line for a counter attack. In spite of this the *S-35* (Lieutenant Commander Ihn), which was also carrying the captain and a part of the crew of the *V-29*, which had been sunk previously, was struck by a heavy shell and breaking in two, sank immediately.

On the *S-51* a hit put one boiler and the steering engine out of commission, while the flotilla leader *V-28* could make only 17 to 19 knots on account of a large hole in the bow. Commander Goehle, then turned over the command of the flotilla to Lieutenant Commander Ehrhardt, leader of the Seventeenth Half Flotilla. Later, Commander Tillessen, commander of the Eighteenth Half Flotilla took over the command and assembled the destroyer groups near the *Rostock* while the *V-28* and the *S-51* followed with reduced speed making smoke.

Since the ships which were attacked were on lines of bearing and offered excellent targets for hits the flotilla commander believed that he could certainly count on a few hits although none could be observed on account of the smoke and the splashes of the enemy shell.

When, in the meantime Flotilla III, under Commander Hollmann, advanced to attack, the battle fleet was in the midst of the turn and these boats were forced to break through the line on the opposite course between the second and third ships of the fifth division. They then passed the smoke screen which had been laid by the boats of Flotillas VI and IX which were returning from attack and standing to the northward through this smoke, they finally commenced their attack on the enemy to the eastward and southeastward after clearing this screen. [Note D, fig. 42. In this note the destroyer sighting the British fleet was *S-54* of Flotilla III.] To their complete surprise they sighted no enemy capital ships and turned to the southward towards a group of six ships which appeared to be enemy destroyers attacking a disabled boat, Flotilla VI or IX. Only the *S-54* (Lieutenant Commander Karlowa), which had rejoined the flotilla during the attack, and was following about 600 meters astern, passed by the turning point of the flotilla and advanced somewhat further to the eastward, was able to distinguish the outlines of the enemy capital ships. In spite of the fact that the boat steamed at full speed it could not approach the enemy column closer than 9,000 meters and therefore fired a torpedo at this range at 8.45. As the boat turned the *Wiesbaden* was again sighted some considerable distance away. At about the same time a group of British destroyers

had approached the other boats of Flotilla III and engaged the latter in a running action after turning to a southerly course at ranges of about 6,000 meters. The *G-68* fired a torpedo at one of these destroyers which was at first mistaken for a light cruiser. When light cruisers and further destroyers were sighted behind these enemy destroyers, the flotilla laid a smoke screen to protect their own battle cruisers, and turned to course SW. to rejoin their battleship column.

The torpedo attack was even more difficult for the boats of the V and VII Flotillas, as they had made the turn with the fleet and were steaming up to take position near the head of the column when the signal of the commander in chief was received for the destroyers to attack. From their position it was impossible for these flotillas to obtain a view of the situation of the battle cruisers and Battle Squadron III. Therefore, the commander of Flotilla VII, Commander von Koch, felt that an attack from his position would be useless and remained in the lee of Squadron II in order not to denude the head of column of all torpedo-boat protection. On the other hand Commander Heinecke turned with Flotilla V toward the *Rostock* immediately on receipt of the message. Both Flotillas V and VII were up to strength and had not fired any of their torpedoes. Flotilla V received orders from the *Rostock* to attack immediately on course ESE., but it was not until 8.50 that the group was able to pass through the increasingly dense clouds of smoke which lay to the eastward of the battle cruisers and the fifth division. [Note C, fig. 44.] After passing the smoke screen nothing was sighted but a few individual light cruisers and numerous destroyers which opened fire on the flotilla at long range as these boats stood on to course south. Behind these light forces nothing could be made out on account of the enveloping smoke and a further advance without supporting light cruisers was deemed futile owing to the superior armament of the enemy destroyers and light cruisers. At 8.52 Commander Heinecke turned off and headed for his own battle fleet on course SW.

Unfortunately the strongest and fastest destroyers, Flotilla II, under Commander Schuur, were unable to join the attack. These boats, which still had all their torpedoes, had been hindered by the presence of Scouting Division II from regaining their station and had been under heavy gunfire for about three-quarters of an hour without being able to get clear. (Owing to their large turning circle they had great difficulty in following the turning movements of the leaders of the other flotillas and this had proven disadvantageous in the attack on the Third Battle Cruiser Squadron). Finally making a wide sweep the flotilla leader was able to gain sea room and was about to follow Flotilla VI through the line of battle cruisers

to attack when the smoke screen from the vicinity of the *Lutzow* drifted past and completely obscured the view. At this moment Commodore Heinrich hoisted the signal on the *Regensburg* "follow the leader." The flotilla thereupon abandoned the attack and followed the *Regensburg*. In this maneuver they became involved in further difficulties as the flagship was compelled to sheer out to avoid the battle cruisers which were making a simultaneous turn. Thanks to the superb seamanship and determination of the commanding officers, this maneuver was completed without accident. The recall of the flotilla was brought about by the fact that Commodore Heinrich had noted the lull in the enemy gunfire following the attack of Flotillas VI and IX, and judging from this that the enemy ships had turned away to avoid torpedoes, it was assumed in that case that the attack of Flotilla II would be launched into empty space as was the case of the attack of Flotilla III.

This impression of the second leader of destroyers was in accordance with the facts of the case, since the pressure on the German column which had become critical since 8.15 had been relieved. At 8.16 the *Royal Oak*, astern of the *Iron Duke*, had opened fire with her secondary battery on the approaching destroyers, followed at 8.18 by the *Agincourt*, and at 8.19 by the *Marlborough* at 10,000 meters. At 8.20 the *Temeraire*, next to last ship of the *Benbow* division, opened at 8,600 meters with the entire secondary battery. At the same time the *Vanguard*, rear ship of this division, joined in the fire with her main battery. At 8.24 the *Iron Duke*, *Benbow*, and *Canada* joined the fire on these boats at 9,000 meters. From the head of the column the *Tiger* and *New Zealand* opened with the secondary battery at 8.27 at 16,000 meters, being joined by the rear ships of the squadron, *Malaya* and *Valiant* at ranges of 7,300 meters with the entire secondary battery and two 38 cm. guns. But even this fire was insufficient to halt the torpedo attack, so that at 8.30 the *Temeraire* and *Hercules* brought their main batteries to bear on the attacking boats at 8,200 to 5,400 meters. Although a few salvos struck very close to these boats, few hits were made, owing to the numerous changes of course of the flotillas and the smoke of gunfire. It was evident that gunfire alone would not offer sufficient protection against the torpedoes of the attacking flotillas. At 8.18 the *Barham*, which was third from the rear of the column, was forced to sheer out to avoid a torpedo, while at 8.25 the *Inflexible*, in the battle cruiser fleet, sighted the track of a torpedo which passed close astern.

At 8.20 Admiral Jellicoe therefore held the moment propitious for resorting to the only method which his experience had shown was effective to counter such an attack, although in the execution of the maneuver he would have to sacrifice the effective gunfire against the enemy fleet which he had attained as a result of his superior

tactical position. This maneuver consisted of turning his ships away from the approaching torpedoes by a simultaneous movement. At this moment the *Orion* and *King George V* divisions were in line of bearing approaching ahead of the *Iron Duke*, in compliance with the previous signal, and was thus hindering the execution of the proposed maneuver. In order to gain sea room he therefore ordered Admiral Jerram at 8.21 to turn the ships of the two leading divisions four points away from the enemy. Only then was he able at 8.21 to order the other divisions to turn ships left two points. At the same time he ordered the Fourth Light Cruiser Squadron to stand to the westward at full speed to force the enemy flotillas to bear off while avoiding if possible interfering with the fire of the battle cruiser squadrons at the head of the line. At this time the second wave of the German attack was advancing on the British line. Meanwhile the hurried range-finder readings and calculations on the flagship indicated that a turn of two points would be insufficient to clear the approaching torpedoes. Therefore, at 8.25 Admiral Jellicoe was compelled to order a further turn of two points away from the enemy. [Note D, fig. 41.] While these events were transpiring, the greater part of the British destroyers had not yet reached their battle stations, and only a part of the Ninth Flotilla was available to make the counter attack with the Fourth Light Cruiser Squadron.

Since Admiral Jellicoe was still uncertain as to how far the German capital ships had turned off, he ordered the cruiser squadron at 8.32 not to approach too close to the German line. Therefore, after a short engagement with the German boats at 8,200 to 7,300 meters, this squadron turned off at 8.36 on southerly course to resume station ahead of the battle fleet. [Note A, fig. 44.] While turning six torpedoes passed close by these cruisers, headed for the fleet. Admiral Jellicoe, who was only later informed of these torpedoes, believed that the maneuver started at 8.21 had taken his ships clear of the torpedo danger zone by 8.35 [note A, fig. 43] and therefore ordered the columns of divisions to resume course S. by W. at this time. His somewhat too early turning maneuver [that is, his turns away at 7.22 and 7.25], in the execution of which he sacrificed the effective gunfire which had just reached its height, was practically useless, since the German torpedoes were just about to reach his line when he turned back to the original course. It was only due to the fact that the sea was smooth and the torpedo tracks made by the air bubbles were easily visible that the endangered ships were able to sight them in sufficient time to sheer out. At 8.33 the *Marlborough*; which had already been damaged by a torpedo hit, sighted the tracks of three torpedoes to starboard. By turning to starboard

and then hard to port the ship was able to clear one torpedo ahead and the other astern, while the third passed close by or even under the stern without exploding. At the same time the *Revenge*, second ship in the division, sheered out to avoid two torpedoes, one of which passed within a few meters of the bow and the other close astern. Further, the *Hercules* and *Agincourt* had to turn in all about six points to port to avoid two torpedoes which just cleared the bow and stern of the former ship.

The *Colossus*, leading the fifth division, was then forced to sheer out to avoid a torpedo hit while the *Royal Oak* sighted a torpedo to starboard which passed the *Iron Duke* at slow speed about 180 meters to one side, and passing through the line between the *Iron Duke* and *Thunderer*, finally sank after traveling 1,800 meters further. At 8.43 the *Marlborough* division was again endangered, whereby the *Revenge* was forced again to sheer out to port, just clearing a torpedo which passed close astern. At 8.45 a division of the British Twelfth Flotilla broke through the rear of the line and made a counterattack on the attacking enemy torpedo flotillas. (In this action a German torpedo boat of the "V" class which was near the Fifth Battle Squadron, was sunk. This boat was flying the pennant of the commander of a half flotilla. It could therefore only have been the V-48.

Although as a result of the so-called "percentage of hits," none of the many torpedoes fired made a hit, the tactical results of this mass attack of the German boats were very great. The twice-executed maneuver of turning away and the individual movements of the ships in sheering out from the torpedoes and erroneously reported submarines had thrown the formation of the British battle fleet into confusion at the very instant when victory seemed within their grasp. The energetic attack of the destroyers, supported by the battle cruisers, which was carried to within good torpedo range of the enemy line, and the tactical effect of this attack followed by the cleverly laid smoke screen which shrouded their further movements, showed the British that the worst might be feared if this maneuver were repeated under circumstances where the visibility conditions did not permit the torpedo tracks to be so clearly seen. The commander in chief and the commanding officers were therefore convinced that this particular experience in the battle should not be underrated. (Note Jutland Dispatches, page 98, War Diary of the *Collingwood*.) For the English a circumstance which was even worse was that after the second attack all contact with the enemy battle fleet was lost. At 8.18 the *Iron Duke* was forced to cease fire on the German battle cruisers, since the smoke screen which had been laid between the latter and the British completely obscured

the view from the British flagship. After an interval this ship was again able to make out one battle cruiser through the smoke at 8.20 but before the salvo could be fired the ship had again disappeared. Only the *Canada* and *Superb* were barely able to make out the faint outlines of the *Derfflinger* and *Seydlitz* and could fire a few salvos.

The *Monarch*, second ship of the *Orion* division, sighted the four German battle cruisers just before the turn, while the *Orion* was also about to reopen fire on a ship of the *König* class when the target was lost as the turn to port was executed. Only Admiral Beatty's forces and the ships at the rear of the line were still able to sight the German forces. Thus the *Derfflinger* and *Seydlitz* still offered a clear target to the *Collingwood*, second ship of the *Colossus* division, which was able to fire at 7,300 meters, while the *Malaya* fired on the *Derfflinger* at 9,200 meters. But even the ships in these divisions soon thereafter lost their targets as the smoke screen extended, and the *Valiant* and *St. Vincent* were then forced to hold their fire at 8.26, after the latter had been able to hold on the *Derfflinger* uninterruptedly since 7.45. Although the *Indomitable* was able to continue an interrupted fire on the *Derfflinger* from the head of column until about 8.40, practically all fire from the British line ceased after the destroyer attack. After the turn of the German fleet the sudden wave of effective gunfire of the British fleet had passed. In general this had been restricted to about six minutes.

The dying out of the British fire and the final silence created the distinct impression on the German side that the torpedo attacks of Flotillas VI and IX had caused the enemy to turn away with probable casualties resulting from torpedo hits, the extent of which were indeterminate. However, that may have been, the attack planned against the enemy center had succeeded and the fleet had been freed from a tactically inferior position. The losses sustained in the attack had not been too great a price to pay. Although the battle cruisers and leading ships of Squadron III had evidently sustained more casualties in this phase of the engagement than in the earlier part of the battle, they were still able to maintain their station in the formation and could make sufficient speed for the night cruising. Even the *Lutzow*, when sighted at 8.30 abeam of the flagship, was able to maintain a moderate speed.

During the attack of Flotilla IX, Commander Goehle had reported at 8.15 from the flotilla leader V-28 that the enemy fleet comprised more than 20 battle ships and that they were on course SSE. This message was followed at 8.20 by a report from Admiral Boedicker, stating that the *Lutzow* was under fire from capital ships to the NE., while at 8.32 Commander Tillessen, commanding the Eighteenth Half Flotilla, reported strong enemy forces to the SE. As a result

of these messages Admiral Scheer was for the first time definitely informed that he had been engaged with the whole British fleet. It was therefore certainly to be expected that the enemy would attempt to renew the attack on the German fleet during the twilight and follow this up by destroyer attacks during the night in order to force the fleet further to the westward. Finally at dawn he would attempt to force a second battle with full strength and bring his numerical superiority to bear. If it were possible to counter the enemy envelopment and reach Horn Reef before the British fleet, the German commander would again have obtained the initiative for the next morning. In order to accomplish this the German fleet must be held in close formation and kept on the shortest route to Horn Reef, holding this course during the night in spite of all enemy attacks. At the same time every effort must be made to bring the German flotillas to attack during the night, even though they ran the danger of not being present for the expected action on the following morning. Flotillas VI and IX had not yet returned from their last attack, when Commodore Heinrich, second leader of destroyers, received instructions to employ these two flotillas as well as Flotilla II, which had remained with the *Regensburg*, for night attacks on the enemy fleet. Thereupon Admiral Scheer ordered Squadrons I and II followed by the fleet flagship to change course to SW. at 8.27 and to south at 8.45, while Squadron III and the battle cruisers closed the formation from the northeast and east.

In this lull in the battle the casualties which had occurred during the action could be ascertained. The following ships had no casualties among the personnel and had received practically no damage: *Kaiserin*, *Kaiser*, *Prinzregent Luitpold*, and *Kronprinz*. Even the other ships of Squadron III had suffered relatively little, although *Markgraf* was hit 5 times, *Grosser Kurfürst* 8 times, and *König* 10 times. All main battery guns were ready for action, while the secondard battery, torpedo installations and propelling machinery had suffered very little. Even the casualties among the personnel were only moderately large. On the *König* the killed totaled one doctor and 44 men, on the *Kurfürst* 2 officers and 12 men, and on the *Markgraf* 8 men. The last two ships had 6 and 7 severely wounded while the *König* had 20 men out of action on account of gas poisoning. On the other hand the damage to the ships of the fifth division, exclusive of the armament, was considerable. As a result of a major caliber hit on the *Markgraf* one compartment near the stern was flooded above the protective deck, while the propeller shaft of the port engine was apparently bent. A further shell had penetrated the casemate armor and killed the crew of one of the 15 cm. guns. Further hits had destroyed the torpedo net outriggers and rigging, damaged the instruments in the radio station while splinters had

caused a short circuit in the secondary spotting station. On the *Grosser Kurfürst* two shells striking close together on the port side forward had bent in three armor plates near the water line. A further hit on the barbette armor of Number 2 turret had penetrated the armor, while a piece broken out of the latter had gone through the torpedo bulkhead. After these hits the whole forward part of the ship except the double bottoms and torpedo compartment was filled with water up to the main deck. At the same time another shell striking the barbette armor of the forward turret caused considerable damage to the upper works forward by the resulting splinters. Further splinters from a shell striking under the casemate armor had destroyed the air ducts to the forward fireroom, while another hit had loosened the plates at the armor belt, causing the adjacent double bottoms and protective bunkers to flood.

As a result of the leaks the *Grosser Kurfürst* listed 4° to port which was finally reduced to 1° by counter flooding. After stopping the leaks 800 tons of water remained in the ship. On the *König* a major caliber shell had struck the forecastle doing considerable damage in the hull forward. A further hit moved the armored transverse bulkhead 1.5 meters aft, while the splinters penetrated the casemate armor, gun deck and main deck, putting the oil burning firerooms out of action for a time, as well as two casemate guns and exploding their ammunition. In order to minimize the danger of gases the magazine supplying these guns were flooded. Three further shells had glanced off the conning tower, the face plate of the forward turret and the forecastle, but did not detonate until after they had ricocheted, doing no particular damage. Double bottoms and protective bunkers had flooded in several parts of the ship, necessitating counter flooding to such an extent to keep the vessel on an even keel that 1,600 tons of water were in the hull. On all ships of the fifth division the mast tops nets and radio rigging as well as searchlights were full of splinter holes, but thanks to the energetic efforts of the crews the damage was repaired and the ships again in readiness for action in a very short time.

On the *Von der Tann* the loss of the two center turrets as a result of the guns failing to return to battery was particularly disastrous, but even in this case it was possible to overcome the derangement by 8.30 p. m., although any further firing would probably result in a repetition of the casualty. Shortly thereafter the after turret was again ready for action as a result of the work of the mechanics and repair gang which were able to cut away the bent plates with oxy-acetylene torches and clear away the wreckage which covered the magazine flood and drain valves, thus permitting the flooded magazines to be emptied. The turret could be operated only with hand gear after this. On the other battle cruisers this pause in the

battle was utilized to extinguish fires, drain flooded magazines and to clear away the wreckage where this hindered the service of the guns, as well as repairing the radio installations and searchlights in preparation for the night.

While the capital ships were thus engaged in repairing damage and getting the ships ready for action, Flotillas VI and IX had just returned from their attack. But it was soon evident to Commodore Heinrich, who had remained on the *Regensburg*, near the battle cruisers, that *V-28* and *G-41*, the flag boats of Flotillas VI and IX, as well as the *S-52*, had fired all of their torpedoes, while the other boats of the Eleventh, Seventeenth, and Eighteenth Half Flotillas had fired all but one torpedo apiece. As a result of hits the *V-28* and *S-51* were reduced to 17 and 21 knots, respectively, while the latter was forced to steer from aft, owing to the damage to the bridge. Therefore the group, *V-28*, *S-51*, and *S-52* joined Battle Squadron I under command of the *V-28*, while the other five boats of Flotilla IX, *V-30*, *S-34*, *S-33*, *V-26*, and *S-36* as well as *G-42* of Flotilla III, proceeded under the command of Commander Tillessen, to join the first leader of the destroyers who with the *Rostock* and Flotilla VII was steaming to the eastward of Squadron I at the head of the line. Since he did not wish to employ boats for the night attack which had less than two torpedoes, Commodore Heinrich further dispatched the Eleventh Half Flotilla to the same position. There remained available therefore only the boats which had not participated in the last attack. These included Flotilla II and three boats of the Twelfth Half Flotilla under Lieutenant Commander Lahs, the *V-96*, *S-50*, and *V-46* which had been protecting the *Lutzow*. The escort of the latter vessel was left to the *G-37* and *V-45*.

Meanwhile Flotilla III, on returning from the attack, sought to make a last attempt to reach the *Wiesbaden* but this vessel had been lost to view and this flotilla as well as Flotilla V had not yet been able to find their own main body. The only point of departure which could be used in starting the search for the British Fleet was based on the reports of the *V-28* and *V-30*, and these positions had probably been altered considerably by the subsequent movements of the enemy. As Commodore Heinrich passed the *Seydlitz* at 9.02 he was informed by that vessel that six British battle cruisers had passed to port of the *Lutzow* and were bearing SSE. at the time. This report was based on observations made by the *Lutzow* at 8.49, at which time the head of the enemy column was bearing ESE. of that ship. However, in his instructions to Flotilla II for the night attack at 9.09, the second leader of destroyers voiced the opinion that the enemy was probably to be found in the sector east to northeast. At 9.10 he changed the

assigned search sector of Flotilla II to ENE. around to ESE., while the three available boats of the Twelfth Half Flotilla were ordered to search in sector ESE. to SE. In order to give the boats a starting point free from smoke and mists he proceeded with the flotillas to a point in rear of the column to the northward. He had scarcely arrived at this point and dispatched the flotillas on their mission, when a message was received from the commander in chief, ordering all boats to attack and placing these operations under the direction of the first leader of destroyers. Commodore Heinrich, who had foreseen this order, had therefore restricted his operations to the tactically unfavorable northern sectors in order that his forces might not interfere with the search operations of the first leader of destroyers. He, therefore, reported immediately by radio to Commodore Michelsen, stating the disposition he had ordered for Flotilla II and the Twelfth Half Flotilla. [For their positions see flotilla plots in fig. 46.] The latter decided against giving any further orders in order not to delay the operations of the boats during the short period of darkness, and for the time being held back the boats of Flotillas V and VII and the Eighteenth Half Flotilla which were concentrated near the *Rostock*.

Unfortunately, neither the *Regensburg* nor the *Frankfurt*, flagship of Scouting Division II, took the occasion to repeat the important report of the *Lutzow* to the commander in chief. This was sent by blinker, since neither the *Seydlitz* nor the *Lutzow* were capable of sending radio messages. Therefore the impression grew on the other ships and the fleet flagship that the last blow at the enemy center had caused the British to abandon the pursuit, and some officers were even inclined to believe that the enemy formation might even have been shattered. No one seemed able to report definitely on the position of the British battle fleet after the torpedo attack.

On the English side, the uncertainty regarding the subsequent movement of the German fleet after the last clash was no less great. Since Admiral Jellicoe had turned away to avoid the torpedoes during the last attack, an hour had passed without reports of any kind. As the last German ships which were visible from the *Iron Duke* passed out of sight in the smoke screen, the rear ships of the column were still maintaining a heavy fire. As the main battery on these ships had joined in the fire of the secondary battery against the attacking torpedo boats, the fleet flagship did not realize that this was only torpedo defense fire. Thus it appeared as though the rear divisions which were out of sight in the dark horizon were still engaged in a lively action with the German battleships and that the latter would soon reappear. Far from assuming that the German fleet had made another full turn to reverse course, the British commander was in-

clined to believe that the head of the column had changed course not more than eight points. As he turned his ships through five points to starboard at 8.35 to resume the original course of S. by W. after the torpedo attack, he believed that he would sight the enemy fleet again at any instant and be able to renew the battle.

In this expectation, he was soon to be disappointed, and was forced to conclude that the maneuver executed in turning away from the enemy, whether avoidable or not, had cost him the decision of that day. The only thing he had achieved appeared to be that now, as before, his forces were between the enemy and their line of retreat. He decided, therefore, under no circumstance to abandon this position until more could be learned regarding the location of the enemy forces. Only in this manner could he hope to find a further opportunity in the course of the evening for striking a decisive blow. After the policy of holding back, which he had displayed in the previous course of the action, it is doubtful if he was fully determined to regain contact. If this were really the case, he must have welcomed Admiral Beatty's illuminating signal sent at 8.40, showing that the battle cruisers at least had not lost all contact and that the enemy was about 10 to 11 miles NW. by W. of the *Lion*, although as a result of the errors in reckoning between the *Iron Duke* and the *Lion*, this would have placed the enemy about 2 miles on the port beam of the *Iron Duke*. It might have been assumed that since Beatty's force was not in sight from the battle fleet, it must be about 5 or 6 miles ahead of the leading ship of the column. From this the bearing of the enemy from the British battle fleet might have been easily calculated. Shortly after the receipt of this message (8.42) Admiral Jellicoe ordered the fleet to form column and from this formation to turn into line of divisions on course SW. in order to make an approach on the same course as the battle cruisers. At 8.45 the last German ship had disappeared from Admiral Beatty's view in the smoke screen laid by the destroyers. At the same time the uncertainty of the situation was further increased by an urgent message from Commodore Goodenough, commander Second Light Cruiser Squadron, at the rear of the line, according to which report a number of enemy ships of a type not distinguishable, had been detached from the fleet and were on course NW. at 8.15. What Commodore Goodenough had seen was in reality the turn of the units of the German fleet onto the reverse course, but the fact that this turn had been made was not recognized by him, nor was it to be inferred from the contradictory wording of his report. At 8.45 Admiral Beatty repeated his report on the bearing of the enemy by means of a searchlight signal relayed through the *Minotaur* to the head of the battle fleet column. Three minutes later, manifestly deceived by the turning evolution of the British fleet

at the most important moment of the battle, he sent the following message in order to give greater weight to his report, viz: "Submit that van of battleships follow battle cruisers. We can then cut off the whole of enemy's battle fleet."

Both of these signals were noticeably delayed in some manner which was never clearly explained. The message was first received on the *Iron Duke* at 8.45, and if one can accept the English account on this point, it was 9 p. m. before the message was decoded and came to the attention of the commander in chief. Meanwhile, the searchlight signal, which was reported at 8.59, sufficed to cause the latter to swing the fleet in line of divisions to course west. Scarcely had Admiral Beatty's urgent radio been reported to him when he gave instructions to Admiral Jerram, commanding the leading squadron, to follow the battle cruisers. (9.07.) In this he assumed that the latter were still in sight from the van of battle fleet, but this was not the case. On the other hand, the exact position of the battle cruisers was unknown to Admiral Jerram at the time, and he could scarcely hope to make contact with them as his ships were already steaming at 19 knots, and owing to the numerous changes of course made by the fleet, these ships were barely able to maintain their station in the formation in line with the other divisions. It was also not clear on what ground Admiral Beatty based his assumption that he could cut off the entire enemy fleet. In sending the radio with this assurance he himself had already lost contact. He was, however, trying to reestablish this as soon as possible, and had changed course to WSW. at 9 p. m. for this purpose, while at the same time he ordered the First and Third Light Cruiser Squadrons to advance as a scouting line on the same course in order to locate the enemy head of column before dark.

Under these circumstances the situation was still as full of uncertainties for the British commander in chief as before. Neither from his own ships nor from the Admiralty had he received any reasonably complete reports on the strength, disposition, position, or battle formation of the enemy forces. Neither had he been in the position to make his own observations on these points which were essential for a proper estimate of the situation on which important tactical decisions could be based. All that he had seen was a transient view of the faint outlines of a number of capital ships of the enemy forces. Whether these belonged to the van, center, or rear of the enemy formation was a question to which he received no answer from any source. Now, even these ships had disappeared, and it was still doubtful whether this disappearance was due to decreasing visibility conditions or to a large scale tactical maneuver of the enemy. (Corbett: Naval operations, Vol. III, p. 384.)

At this time, if the route chart can be considered as reliable, a German airship, the *L-14* was about 11 miles to the northward of the British fleet flagship. At all events, the *Falmouth*, flagship of the Third Light Cruiser Squadron, thought she sighted an airship over the head of the British column at 9.19 for a few minutes. The five airships which had taken off toward noon had received orders from Commander Strasser to return between 5 and 7 p. m., on account of the very uncertain weather conditions. Consequently, the *L-9* and the *L-16* had returned from their reconnaissance to the westward and landed at Hage between 7 and 8 p. m. On the other hand, the *L-21*, *L-23*, and *L-14* were about 100 miles to the westward of Bovbjerg between 7 and 7.30, or about 40 to 60 miles NW. of Hanstholm. Of these the *L-21*, Lieutenant Commander Dietrich, was scouting on the western flank of the fleet on southerly course toward the Dogger Bank, and at 9.30 had proceeded from a point about 100 miles NW. of Brokum Reef toward Helgoland, and landed at Nordholz at 2 a. m. The *L-23*, Lieutenant Commander Schubert, had also gone on course SSW. at 7.30, arriving over Vyl Lightship at 1.43 p. m., and landing at 2.30 a. m. Only the *L-14*, Lieutenant Commander Boecker, which had turned at 8.30 while on the sixth meridian about 50 miles SW. of Lindesnes, was in a good position for sighting the enemy forces. As this ship picked up a radio from Flotilla IX at 9 p. m., reporting the sighting of 20 enemy capital ships, it turned SSE. while 90 miles to the westward of Hanstholm and under conditions of poor visibility headed for the light at Lyngvig, which was made out at midnight. Although in this manner it must have passed over the entire battle field the ship neither sighted any vessels nor heard any gunfire and landed at about 5 a. m. at Nordholz. It is probable, therefore, that the position of the airship as well as the report of the *Falmouth* was in error. If it had been possible for an airship or airplane to view the battle field at about 9.10 without same being obscured by the darkness and smoke the observer would have been astounded at the situation [fig. 45]. The fleets were only 12 miles apart; the British fleet was steaming at high speed in line of divisions directly toward the German fleet, the German and British flagships in the same latitude, while the battle cruisers under Beatty, with the light forces, were about to complete another envelopment of the German head of column. Another clash of the fleets seemed imminent.

On the German side nothing betrayed the approach of the British fleet. The German forces had regained their close formation and were on course south, with the squadrons in inverse order. With this change of course the *Westfalen* had changed station with the *Hannover*, leading ship of Squadron II, so that the latter was now to

starboard and ahead of Squadrons I and III, while the *Deutschland*, the rear ship of Squadron II, was about on line with the *Westfalen*. The battle cruisers, after the numerous vicissitudes of the battle, had succeeded in rejoining the battle fleet and were now on the point of taking station again at the head of the column. At 9.10 Scouting Division IV was about 3 miles in advance of Squadron II, Scouting Division II about 4½ miles ahead of Squadron I, while the battle cruisers were nearest the enemy about 3 miles on the port beam of the *Westfalen*, and the *Lutzow* was steaming around to the rear of the line to seek protection on the western flank. Only to the north-eastward was there some contact with the enemy, due to the fact that Flotilla V in returning from attack was being pursued by enemy light forces. At 9.05 the *Castor*, leader of the Eleventh Flotilla, which was steaming about 5 miles ahead of the leading battleship divisions, had sighted heavy smoke to the WNW. and had turned toward this with eight destroyers, while Commodore Le Mesurier proceeded to his support with the *Calliope*, *Comus*, and *Constance* of the Fourth Light Cruiser Squadron. [Note C, fig. 46.] At 9.15 this force was able to make out about 12 German destroyers, which, it was assumed, were about to attack the British battle cruiser squadrons to the southward on course SSW. The British light forces thereupon attacked these boats, opening fire at 9.18, and pursued them to the NW. The boats of Flotilla V stood off and finally rejoined the *Rostock*, following this vessel and the other boats in that vicinity through the intervals of Squadron III and passed to the western flank of the line. At 9.26, therefore, the pursuing British light forces were suddenly confronted by a line of battleships distant about 7,300 meters, in the center of which appeared vessels of what were taken to be the *Pommern* class, followed by ships of the *Kaiser* class on course south. The *Prinzregent*, *Kaiser*, and *Markgraf* were able to distinguish on the quarter first one and then two light cruisers with three stacks and several destroyers, and thereupon opened fire at from 5,800 to 6,400 meters. While the destroyers turned off immediately without attempting a torpedo shot under these very favorable conditions, the *Calliope* fired a torpedo at 9.30 at a range of about 5,900 meters. The *Prinzregent* fired one salvo, the *Kaiser* two salvos with main battery, while the *Markgraf* opened with her secondary battery before the enemy light forces disappeared in the mists. In this very short action the *Calliope* was hit five times, two guns being put out of action, with 10 killed and 23 men wounded.

During the progress of this action the guns of the Third Light Cruiser Squadron and the British battle cruisers opened up again farther to the southward. There Rear Admiral Napier had established a north and south scouting line about 4 miles to the west-

ward of the *Lion*, consisting of the light cruisers *Falmouth*, *Yarmouth*, *Birkenhead*, and *Gloucester*, later joined by the *Canterbury*. At 9.09 the *Falmouth* on the right flank of this line had sighted ships bearing W. by N., and had immediately reported them. Five minutes later this ship was able to make out five German light cruisers, bearing W. by N., which were about to pass the British line of scouts to the southward. The *Falmouth* turned immediately to parallel course, and at 25 knots effected a concentration with the other light cruisers in battle formation. The ships with this force sighted were the German Scouting Divisions II and IV.

On the other hand these last forces sighted four or five cruisers on the "city" class at 9.17 apparently on course southwest; and, while Read Admiral Boedicker, commanding the Scouting Division II, was reporting the sighting of these vessels, enemy battle cruisers appeared astern of this detachment. In order to open fire with his ships, and at the same time to clear the line of fire for the German battle cruisers and Squadron I, Admiral Boedicker turned to starboard, while Commodore von Reuter, in a more favorable position, turned sharply toward the enemy. The latter was soon engaged in a lively action on converging course with the enemy light forces at from 8,700 to 5,400 meters, in which the British were considerably favored by the prevailing visibility conditions.

Only the two leading ships, *Stettin* and *München*, were able to return the enemy fire with about 63 shells, while the fourth ship, *Stuttgart*, could make out only one enemy ship, which was already under fire. The *Hamburg* was forced to cease fire after one salvo, since spotting observations were impossible. Under these unfavorable battle conditions Scouting Division IV was in a critical position from the start. Evidently they offered excellent targets against the clear western horizon, and soon the *München* received two 15-cm. hits. One of these detonated in the port cutter, killing four men, and putting No. 3 searchlight out of action. The other exploded in the upper part of the third stack, cutting out a hole of 3 square meters, while the blast destroyed the lagging on the four after boilers, making it difficult to keep up steam. As the enemy, using his superior speed, hauled around ahead of Scouting Division IV, Commodore von Reuter also turned slowly to starboard, and finally turned away eight points in order to draw the enemy, who was maintaining an effective fire at 10,000 meters, toward Battle Squadron II. The enemy refused to follow this movement, and was shortly thereafter lost to view in the gathering darkness.

This action was only the prelude to a series of larger engagements.

Admiral Beatty had scarcely heard the sound of gunfire to the westward when he stood over in that direction with his battle cruisers, and at 9.18 sighted the German battle cruisers bearing NW. and ships of the *Helgoland* or *Deutschland* class dead ahead. Although the *Lion* had 3 of her heavy guns out of action, the *Princess Royal* 2, and the *Inflexible* 1 of her 8 guns, while the *Tiger* had a heavy list with more water entering the ship with every turn of the rudder: the battle effectiveness and, above all, the speed of these ships was sufficient to permit them to accept battle under the protection of the dark horizon without waiting for support from the battleship divisions. Admiral Beatty, therefore, turned to port following the Third Light Cruiser Squadron into action. At 9.20 the *Inflexible*, followed by the *Princess Royal*, *Tiger*, and *New Zealand*, opened fire at from 7,500 to 11,900 meters, in which the *Lion* and *Indomitable* joined at 9.23 and 9.26, respectively.

This sudden appearance of Admiral Beatty's forces in this far-advanced position to the southward came as a complete surprise to the German battle cruisers, since they had not been able to pick up the radio message of Scouting Division II reporting this force. [That is, because their radio stations had been destroyed.] Admiral Hipper was just on the point of stopping the battle cruisers in order to transfer his flag to the *Moltke* when suddenly the flash of gunfire was seen to the SSE. in the dark horizon and these ships were again in the midst of an overwhelming fire from an invisible enemy. Nevertheless, battle was accepted, and this force opened fire at about the same time as the British battle cruisers—at 9.20 on the *Seydlitz* and *Moltke* followed by the *Von der Tann* and *Derfflinger*—with all available guns of the main and secondary batteries. At 9.32 the *Lion* and *Princess Royal* were hit, but the targets were still very faint and observation of splashes impossible, causing the fire to be frequently interrupted. During this action the *Von der Tann* fired with four guns of the main battery and five of the secondary battery only, 8 and 15 shells, respectively. [This was very creditable work, as it will be remembered that at one time all her guns were out of action. The utility of Captain Zenker's decision to stay with his division is now seen.] Under these circumstances the enemy fire was considerably more effective, aside from their numerical superiority. While the *Lion* and *Princess Royal* evidently concentrated their fire on the *Derfflinger*, leading the column, the *New Zealand* and *Indomitable* fired on the *Seydlitz*, and soon these two German battle cruisers were suffering severely. At 9.24 the *Seydlitz* was hit amidships, while soon thereafter a heavy shell struck the only turret of the *Derfflinger*, which was still in action, and jammed the training rack for several minutes. At 9.30 a heavy shell struck No. 4 turret of the *Seydlitz*, while another struck the bridge, killing every officer and man on that station and also causing a number of casualties in the conning tower.

As well as could be observed from the British cruisers, the *Derfflinger* turned out to starboard in flames at 9.27, while the *Seydlitz*, listing heavily to port after two straddling salvos fired by the *New Zealand*, turned out of the formation. Both ships then disappeared from view, the *Seydlitz* apparently sinking. Although the last observations were incorrect, these two battle cruisers suffered very heavily from the hits received in this short action. On the other hand the *Von der Tann* and *Moltke* were uninjured. At 9.30 these last two ships turned off following Scouting Division II through the line of battleships between Squadrons I and II in order to give the latter a clear line of fire. At 9.31 the *Derfflinger* fired her last shot.

Up to this time Vice Admiral Schmidt held his course and speed with Battle Squadron I without being able to distinguish the enemy ships at which Scouting Divisions I and II ahead were firing. Therefore, when torpedo tracks were observed by the *Westfalen* and the *Rheinland*, these were at first attributed to enemy submarines, which were supposedly being attacked by the cruisers of Scouting Division II group. Soon, however, the salvos of heavy-caliber shell which passed over the battle cruisers and splashed near the leading ships—*Westfalen* and *Nassau*—covering the latter with fragments from exploding shell, showed the true situation. Since, however, the battle cruisers were in the line of fire, it could not be returned, and even when the latter were clear of the line of fire the enemy ships could not be distinguished. The battle cruisers had cut in so sharply to the westward across the head of Squadron I that the *Westfalen*, Captain Rodlich, was forced to slow down and turn out to port, followed by the *Nassau* and *Rheinland*. Only the fourth ship, *Posen*, Captain Lange, was able to pick up the turning point of the enemy forces and maintain fire on it from 9.28 to 9.35 p. m.

The final relief of the battle cruisers came from a very unexpected source—this was the attack of the six older battleships of Squadron II which had not been able to enter the actions earlier in the day. While Scouting Divisions I and II as well as Squadron I turned off and disappeared from the enemy view at about 9.30, causing the latter to cease fire for lack of targets, Squadron II, under Admiral Mauve, held its course in order to approach the enemy. In this manner the battle cruisers under Admiral Beatty were prevented from turning to follow their previous enemy and were forced to turn parallel to this new enemy force. At 9.32 the *Princess Royal* fired a torpedo at Squadron II, which, however, was ineffective, while the British battle cruisers thereupon opened fire on the German Battle Squadron II. As the enemy fire gradually drew forward of the beam, Rear Admiral Count von Dalwigk zu Lichtenfels, on the flagship *Hannover*, turned slowly to starboard to course SW. in order to bring all guns to bear. The hope of being able to dis-

tinguish the enemy better was not yet realized. The *Pommern* and the *Schleswig Holstein* were unable to return the enemy fire on account of smoke and poor visibility which prevented spotting. The *Deutschland* fired only one salvo, the *Hessen* five, the *Hannover* eight, and the *Schlesien* nine. On the other hand, this more or less invisible enemy had soon spotted on. At 9.35 the *Schleswig Holstein* was hit by a heavy shell, fired in all probability by the *Princess Royal*, which put one 17-cm. casement gun out of action. The *Pommern* sheered out of the line for a short time apparently hit, while at 9.34 a hit on the *Schlesien* damaged the secondary spotting station by splinters. As Rear Admiral Mauve saw the effectiveness of the enemy fire from his flagship at the rear of the column, he decided not to expose his ships any longer to this fire owing to the fact that the armament of these older battleships was inferior to the enemy. At 9.35 he ordered the squadron to turn to starboard eight points; to the general surprise, the enemy did not appear to follow this movement, but, judging by the location of the flash of gunfire, appeared to hold course SW. in order to haul around ahead of the German fleet. At 9.36 the *Princess Royal* was forced to cease fire, followed by the *Tiger* at 9.40, then the *New Zealand*, *Indomitable*, *Lion*, and *Inflexible*, as these ships each lost their targets in the smoke of battle and the darkened twilight. Following this each of these ships in turn was severely shaken by a heavy shock between 9.37 and 9.44, which was at first attributed to torpedoes or mines, but was later found to be due to the fact that they had passed over some wreck, probably that of the destroyer *Nomad* or *Nestor*.

The fire at the van had scarcely died out when at the rear of the column another action broke out. At 9.30 the German Flotilla II and the Twelfth Half Flotilla had commenced search operations for the night from a point in rear of the German battle fleet. Owing to the proximity of the enemy fleet the German boats operating in the sector ENE. to SE. had made contact with the enemy forces sooner than intended and before nightfall. At 9.30, the British Second Light Cruiser Squadron, forming the screen at the rear of the fleet, had sighted a German destroyer, probably *V-48*, which was still trying to rejoin the German fleet. This boat was taken under fire by the *Southampton* and *Dublin* and hit amidships, and was later destroyed by the Twelfth Flotilla. Soon thereafter further German destroyers were sighted to the NW. approaching the British line with the apparent intention of attacking the Fifth Battle Squadron. At 9.50, Flotilla II, under Commander Schuur, was forced to turn off from four British light cruisers and numerous destroyers, changing course to south and later forced off to the westward. [Note C, fig. 47.] At 9.52, the three boats of the Twelfth

Half Flotilla also came within gun range of the Second Light Cruiser Squadron and were under heavy fire for 20 minutes at ranges from 3,000 to 5,000 meters. Since it was not sufficiently dark for effective torpedo attack these boats turned off to west and north-west. In this maneuver the *S-50* was hit by a 15-cm. shell, which, while not exploding, damaged the main steam line and one boiler as well as putting the electric generators out of commission. The speed was reduced to 25 knots and this boat was forced to return to the fleet. At 10.10 Lieutenant Commander Lahs was able to join Flotilla II, and at 10.40 this force was again able to proceed on their mission to search for the enemy battle fleet.

Shortly before this clash of the German destroyers with the rear guard of the fleet, the advanced screen also sighted other German forces. The second division of the Fourth Light Cruiser Squadron, *Caroline* and *Royalist*, had not made the attack on Flotilla V with the rest of the squadron, but had remained at their station a few miles ahead of the *King George V* division. These ships had thereupon been joined by the *Castor* and the Eleventh Flotilla. At 9.45 three German battleships were sighted to the NW. which were gradually approaching the British line. At 9.55 these were reported by the *Caroline* to Admiral Jerram on the *King George V*, while at the same time the commanding officer of this cruiser, Captain Crooke, proceeded, together with the *Royalist*, to make a torpedo attack. At this point Admiral Jerram interfered and ordered the torpedo attack broken off, as he was of the opinion that the ships sighted must be part of Admiral Beatty's force which had been lost to view for some time. But Captain Crooke was sure of his observations, and, disregarding the countermanding order of his superior, proceeded to carry out the attack on his own responsibility. This was directed against the leading ships of Squadron I, which since 9.45 had been on course south. On the German side there was also considerable doubt whether the several craft sighted in the darkness at 10 to port of the *Westfalen* were friend or foe, as the position of the German Scouting Division IV was very uncertain at the time. Only after a recognition signal made by searchlight remained unanswered and two cruisers accompanied by several destroyers were made out, did the *Westfalen* and *Nassau* open fire at 10.08 at 7,400 meters. At the same time the battleships turned six points to starboard to WSW. to avoid torpedoes which might already have been fired. The *Caroline* and *Royalist* were therefore able to fire only one torpedo each at 7,300 meters. The cruisers turned away after the fifth salvo from the *Westfalen*, and following the *Comus*, which had meanwhile joined this detachment, disappeared under the protection of a heavy smoke screen.

Two torpedoes were sighted by the *Nassau*, and in spite of prompt change of course one of these passed close by the bow while the other

passed under the ship in the wake of the forward turret. The third and fourth ships, *Rheinland* and *Posen*, had been unable to see the enemy at any time. This action, in which the *Westfalen* fired seven 28-cm. shell had lasted in all 2 minutes and 24 seconds, and at 10.10 the squadron led by the *Westfalen* was again on course south. While the *Caroline*, *Royalist*, and *Comus* retired from the German line, passing through their own line of battleships, the destroyers which were following these cruisers made no attempt to fire their torpedoes in spite of their excellent position for such attack. This neglect to fire was largely influenced by the uncertainty regarding the position of Admiral Beatty's forces, on which grounds Admiral Jerram had also ordered the attack broken off. The destroyers did not deem the opportunity favorable for attack without support of the battleships of the leading division, since during daylight the enemy secondary battery could open fire at ranges too great to permit driving home the attack. [It would seem that some great opportunities were lost at this time.]

During these actions in the hours of increasing darkness a stream of messages was pouring into the fleet flagship, while from this ship some of the events could be actually seen as they transpired. In spite of this, however, some time elapsed before the general situation could be entirely cleared up. At 9.21, when gunfire was heard from the ships of the first division of the Fourth Light Cruiser Squadron 2 or 3 miles to starboard of the head of the battle fleet, it was believed that contact with the enemy had been reestablished. Therefore Admiral Jellicoe turned away two points from the enemy to course WSW. in order to bring the fleet into column parallel to the expected course of the enemy. When shortly thereafter Admiral Beatty opened fire from a position to the SW. and the light cruiser *Calliope*, about 3 to 4 miles ahead of the *Iron Duke*, appeared to be under heavy fire, Admiral Jellicoe changed course of the battleship columns back to west at 9.25 in order to make a sharper approach on the enemy. This maneuver was entirely effective, since hardly had it been executed when the faint outlines of large battleships were sighted directly ahead of the *Iron Duke* while from the forward turret no less than nine units could be plainly observed. But before the contact was definitely established, Admiral Jellicoe changed course of the columns at 9.28 to course SW. in order to bring the fleet into column. During this evolution the enemy forces were again lost to view. As a result of this excessive caution an opportunity to deliver an effective blow from the invisible background was lost again, since the German fleet was unable to observe this advance of the British battleship columns.

The cruiser *Comus* of the Fourth Light Cruiser Squadron was still firing at 9.38 and in answer to a signal inquiring on whom she

was firing, replied: "Enemy battle cruisers to the westward." On the other hand the position of the British battle cruisers at that time was doubtful. The sound of gunfire which had proceeded from the direction in which the latter were supposed to be had ceased very suddenly, and at 9.45 an urgent radio from Admiral Jerram reported that these vessels were no longer in sight. It was possible that the ships sighted by the *Iron Duke* and reported by the *Comus* might be the battle cruisers under Admiral Beatty. Not being in a position to make an estimate of the situation Admiral Jellicoe thereupon requested Admiral Beatty to report the bearing of the enemy forces from his (Beatty's) position (9.46). Scarcely had his signal been sent when a message was received from the *Falmouth*, flagship of the Third Light Cruiser Squadron, and supposedly near the battle cruisers, reporting that the enemy was bearing north of the position of the vessel and on course WSW. In this report the *Falmouth* gave a position which was very evidently 5 miles to the northward of her true position and thus placed the English battle cruisers approximately abeam of the British battle fleet. About 10 minutes later Admiral Beatty inquired of the *Minotour* regarding the position of Admiral Jerram and the leading battleship division, but that ship was unable to give a definite answer, since the British head of column had been out of sight from that vessel since about 9.10. Even Admiral Jellicoe's inquiry regarding the bearing of the enemy was delayed in receipt on the *Lion*, since the main radio antenna had been shot away, but at 9.59 Admiral Beatty had already sent a message to the commander in chief which answered the inquiry made by the latter at 9.46. This report stated: "Enemy battle cruisers and older battleships bearing N. 34' W. from my position, distant 10 to 11 miles steering SW. My position 56° 40' N., 5° 50' E. Course SW. speed 17 knots."

At 10.05 this report was in the hands of the commander in chief. Thus the situation was somewhat cleared up and was further illuminated by a message which was now received from Commodore Goodenough, reporting that the Second Light Cruiser Squadron, from which gunfire was distinctly heard near the rear of the column, was in action with German destroyers which were attempting to attack the Fifth Battle Squadron. Soon thereafter, there was heard another burst of gunfire to starboard—this was the torpedo-defense fire of the German Battle Squadron I against the cruisers *Caroline* and *Royalist*.

From all of the above it was evident that the German fleet was again in the immediate vicinity of the British. The *Falmouth*, with the other light cruisers, had been in action with the German advance screen, the battle cruisers had attacked the German head of column and turned them off, and the *Caroline* and *Royalist* had made a

torpedo attack on the latter, while the *Calliope* had evidently attacked the rear of German column, the German destroyers had broken through the line in rear of the latter and had been driven off by the *Southampton* and the Second Light Cruiser Squadron. Thus, even though the British battle fleet proper had not sighted the German fleet since 8.59—the sighting of nine ships by the *Iron Duke* was only the individual report of a single turret officer—there could be little doubt on the flagship as to the actual position of the German forces. The commander in chief knew at 10 p. m. that the latter were approaching the British line and that it was only necessary for him to hold his course with the battleship columns in order to bring on another engagement. In such event he would have been able—or might have assumed that he would have been able—to force the enemy fleet still farther to the westward than had already been done in the short action of the battle cruisers in spite of the uncertainty of a twilight action, and the destroyer flotillas, the greater part of which up to now had had no opportunity for attack, could have been employed in night attacks [fig. 47]. The British commander in chief was not willing to make this decision. The sun had set about an hour before, while the battle smoke settled lower on the water, and any attempt to bring on an action at this time would have led to a night engagement. Admiral Jellicoe wished to avoid this latter contingency under all circumstances.

At 10.01, while the screens at the head and rear of the fleet, the Second and Fourth Light Cruiser Squadrons were still in action, and the *Westfalen* and *King George V*, leading the two battleship columns, were only 6 miles apart, he changed course of the British battle fleet in line of divisions to south. Only Admiral Beatty, with his battle cruisers, the First and Third Light Cruiser Squadrons, and the armored cruisers of the Second Cruiser Squadron, continued his previous course until 10.30 p. m. Of these forces the Third Light Cruiser Squadron had managed to retain contact with the enemy the longest since they had turned to course WNW., following Scouting Division IV, but these ships had been finally forced to retire before the German battle cruisers and rejoin their own battle cruiser squadrons. After this nothing further was seen of the German forces, but it might have been assumed that they were still to the northwestward of the British battle cruisers. But even the position of his own battle fleet was uncertain, and only at 9.16 did Admiral Beatty learn from a signal which had been sent from the commander in chief six minutes previously to the battle squadrons and destroyer flotillas that the battle fleet had meanwhile changed course to south. Under these circumstances

Admiral Beatty did not believe it to be either proper or desirable to approach closer to the head of the German column in the gathering darkness. These reasons were therefore:

1. On account of his distance from his own fleet.
2. On account of casualties to the armament of the battle cruisers.
3. On account of the evident concentration of the German forces.
4. On account of the fact that the latter were accompanied by numerous destroyers.

and finally because he was of the opinion that the position attained between the enemy and his base gave assurance of being able to force an engagement at dawn under very favorable circumstances. Therefore, according to his view, the decision of the commander in chief could best be carried out if he also stood on the course the fleet reported as taking. The mission of the battle cruisers in this situation was to make certain that the German fleet did not haul around to the southward from the west ahead of the British fleet and thus reach the German bight ahead of the latter. At 10.30, therefore, he changed course of the battle cruisers to south, as well as the Second Cruiser Squadron, which had been joined since 8 p. m. by the *Duke of Edinburgh* and *Chester*, and reduced speed to 17 knots, the speed of the fleet, while the First and Third Light Cruiser Squadrons were advanced a few miles to form a scouting line to the south and westward. [Fig. 48. The Second Cruiser Squadron is shown in rear of the Battle Cruiser Fleet.] The considerations which influenced this decision were in general the same as those which caused Admiral Jellicoe to avoid a further action and to turn to the southward. This was reported by the British commander in chief somewhat as follows:

The British fleet stood between the enemy and his base. Each side possessed an ample number of destroyers, and it was very probable that in this type he had a considerable superiority, if, as might be assumed, he had dispatched all available destroyers to sea as soon as a clash between the fleets became apparent.

I therefore rejected any idea of a night engagement between the capital ships, because such an action with the presence of these large numbers of destroyers and the impossibility of being able to distinguish friend from foe might easily lead to a disaster. I was also in danger of sacrificing my superior position, if in order to approach the enemy for a further action I went on an easterly or westerly course, and decided therefore to steer south in order that I might be in the position to renew the engagement at dawn.

Further considerations along these lines led him to a clear comprehension of the inferiority of the British fleet in their equipment to repel night torpedo attacks.

It was further well known to me that neither our searchlights nor their distant controls were of the best type. The fitting of the battleships with firing directors for the secondary battery—a very important factor for night

firing—had just been started, although this work had been the subject of repeated demands. The delay was caused by the difficulties of manufacture and labor difficulties. Without this improvement, as I well knew, it was impossible to obtain our most effective fire at night. We could not, therefore, count with certainty on being able to repel torpedo attacks by gunfire. Therefore, in case that destroyers made contact with our capital ships, we would have to count on severe losses without being able to balance these by a corresponding success. Our own destroyers were not a certain means of defense by night, since, if for this purpose they were disposed in a circle around the fleet, they would have certainly been mistaken for enemy vessels and taken under fire by our own ships.

But aside from the question of torpedo attacks, the result of a night action between capital ships must be always regarded as a matter of chance to a large extent, in which the greater or inferior skill on each side would play a minor role. Such an action would necessarily be fought at very short range, in which the result would depend on the developments occurring within the first few minutes.

It is, therefore, an undesirable procedure on these grounds. The greater effectiveness of the German searchlights at the time of the battle and the greater number of torpedo tubes of their capital ships, in conjunction with the great numerical superiority in torpedo boats would, as I knew, give the Germans the possibility of obtaining considerable success in the early part of the action.

After the British commander had therefore decided to refuse a night engagement in any case, there remained only one mission for him, and that was to bring the German fleet to battle at dawn before they could reach the protection of their own coast defenses. The prospects for the resumption of such a battle depended, to some extent, upon the relative losses of the two fleets during the day engagement.

On the English side the following capital ships had been lost, viz: *Queen Mary*, *Indefatigable*, and *Invincible*. On the *Lion* and *Princess Royal* each ship had the turret out of action, but, in general, the condition of the battle cruisers was such that they were ready to resume the action at any time. In the Fifth Battle Squadron, the *Warspite*, although not destroyed, was forced to return to Rosyth. Also the *Malaya* had suffered considerably, and in particular had lost a greater part of her secondary guns crews, while the *Barham* had received a large number of major-caliber hits; but, aside from this, and in so far as their readiness for battle was concerned, such as speed and gunfire, the battle effectiveness of the Fifth Battle Squadron was about equal to what it had been before the battle. This was even more true of the battle fleet itself, in which the *Marlborough* was the only ship which had suffered any considerable damage or loss of speed. Aside from this ship, the *Colossus* was the only other ship in the battle fleet which had been hit. Of the armored cruisers, the *Defense* was sunk and the *Warrior* out of action, while the losses in the destroyer force was restricted to the *Nestor*, *Nomad*, and *Shark*.

sunk, and the *Acasta*, *Onslow*, and *Defender* out of action. The extent of these losses was, however, not known to the commander in chief at that time. He was only informed that the *Invincible* and *Defense* had been sunk, that the *Warspite* and *Warrior* were returning to port, while the *Marlborough* was reduced in speed to 17 knots. On the other hand, he learned of the loss of the *Queen Mary* and *Indefatigable* only the next day, and so far as concerned the destroyers knew only of the damage to the *Acasta*, which he probably had observed himself.

On the other hand the German losses had been considerably overestimated, since the estimated resistance of the German ships was judged by British standards and further the wish was father to the thought. Although the actual losses of the Germans during the day engagement were restricted to one light cruiser (*Weisbaden*) and four destroyers (*V-27*, *V-29*, *S-35*, and *V-48*), the British counted on the certain destruction of one battleship of the *König* class, four additional destroyers and even one submarine, while the doubtful sinkings which were reported to have been observed were beyond all consideration. Although it was correct, if the British assigned a very low value to the battle effectiveness of the *Lutzow*, *Derfflinger*, and *Seydlitz*, still the ships of the *König* class had suffered considerably less than credited by the British estimates, while the other battleships had practically remained undamaged. The reports of German losses made on the evening of the battle were, however, still so incomplete that Admiral Jellicoe was forced to a large extent to rely on his own observations and assumptions on this point. This much, however, seemed to him to be a certainty: On the two occasions when there had been a battle contact of some extent between the two fleets, the German ships had been hit repeatedly and the British fire was not very effectively returned. Although the reason for this lay in the very poor visibility conditions which were detrimental to the German fire control, Admiral Jellicoe assumed from this that the British fleet was superior in the art of accurate shooting. It must be granted though that at the time the loss of the *Queen Mary* and *Indefatigable* were unknown to him. Further the reasons for the German turning evolutions were so little realized by him that he assumed the German fleet was only anxious to withdraw from the British fire as rapidly as possible. Further, he concluded from the three attacks of the German destroyers between 8.10 and 9.15, that so far as pertained to the enemy torpedo attacks and especially their ability to make hits, that these weapons had been considerably overestimated. Granted that these experiences of the day action had been restricted to the above-mentioned facts in so far as the British commander in chief was concerned and that

this had caused him to underestimate the true fighting strength of the German fleet, this very fact should have influenced him to make use of the great numerical superiority in battle units which were available to him to inaugurate another attack on the enemy. But as a matter of fact, the decision to make another attack was far from the thoughts of the British commander in chief. After the first clash of the fleets his tendency was rather to avoid further engagements while toward evening this had become a definite policy, a proof that he was still very little convinced of the British superiority in armament, gunnery, or tactics, even in the face of the results achieved earlier in the day. The day, therefore, drew to a close without the British being able to make good the severe losses sustained by striking another blow.

CHAPTER 13

SKAGERRAK—FOURTH PHASE—NIGHT

With the decision of the two British leaders to proceed on course south at 10.01 and 10.30, respectively, the day's action was ended. In making the definite decision to avoid further action they voluntarily gave Admiral Scheer a clear route to Horn Reef, since the latter was fully determined to hold this course at the cost of battle, or if necessary to force this passage with the full strength of his leading squadrons. While the British commanders wished to avoid a night action if possible, the German commander saw in such a battle his most favorable opportunity for the contemplated break through the enemy forces. If this were not successful, he was in danger of being cut off from his base by strong enemy forces pursuing from the northward or standing out from the enemy bases from the southward or westward. In any event he must arrive with his fleet at Horn Reef by dawn and base his decisions for further action on the results of the night action and the exigencies of the situation resulting therefrom. Therefore the constant turning off of the leading ships as a result of the attacks occurring since 9.20 appeared most unfavorable for the carrying out of this decision. He succeeded, however, by intervening with direct orders on several occasions in bringing the fleet back on the course toward Horn Reef. At 10.08 as the head of the column appeared to be turning off—a result of the attack of the *Caroline* and *Royalist*—he sent the following radio (10.10): "Main body course SSE. $\frac{1}{4}$ E.; maintain course [the German word used is 'Durchhalten!'], which is a most peremptory order, much stronger than indicated in the translation]; speed 16 knots." The fact that at 10.15 the *Lutzow* was lost to view from the *König*, which was then the rear ship of the column, could not alter this decision. If the fleet reduced speed to equal that of this damaged cruiser or turned back, then it would not be possible for the former to reach Horn Reef by daylight. Since the weather was becoming somewhat misty the commander in chief hoped that the *Lutzow* might escape the notice of the enemy and thus reach port without such assistance.

Meanwhile the constant changes of course by the head of the column had greatly increased the difficulties of Flotillas V and VII, assembled near the *Rostock*, in their efforts to make contact with the enemy. After Flotilla II and the Twelfth Half Flotilla had been dispatched on their search sectors by Commodore Heinrich ENE. to

SE. from the rear of the line, Commodore Michelsen had assigned Flotilla VII the adjoining sector from SE. to S. by E. and Flotilla V the sector from S. by E. to SSW. [Fig. 48. This figure shows start of night cruise. The German flotillas were supposed to start from the van of the fleet, but they actually left from a position on the port quarter of the fifth division. Scouting Division IV was ahead with Scouting Division II. Divisions 3 and 4 were still leading the battleship divisions and did not drop back to the rear until 10.15. *Seydlitz* and *Moltke* were still in the rear and did not take station on the port bow of the battleships until about 10.10.] He was led to this decision on the assumption that the enemy forces, which were to the eastward at the close of the action, would probably steam to the southward along the coast of Jutland during the night in order to renew the action with the German main body at daybreak in the vicinity of Horn Reef. In that event there was the possibility of inflicting severe damage on the enemy during the night by means of torpedo attacks in the prescribed sectors which might prove of the greatest importance to the outcome of the battle expected at daybreak. As Commodore Michelsen dispatched his flotillas at 10 p. m., the position of his flagship, the *Rostock*, and the accompanying destroyers was, as he learned later, somewhat farther to the northward than calculated and toward the westward and rear of his own fleet. In order, however, to get the fires of these coal-burning destroyers in condition for smokeless steaming preparatory to night operations, after their slacking as a result of the daylight attacks, he was forced to keep speed below 18 to 21 knots in steaming up to position at the head of the battleship column. Even at 15 knots these boats were easily visible on account of the sparks and smoke from the stacks. Further, in order to proceed to the attack in their assigned sectors these boats were forced to pass through their own battleship line once or even twice on account of the numerous changes of course made by the latter. This was a dangerous maneuver in the darkness.

A further difficulty was that owing to the uncertainty of their position they had to count on coming into the attack sector of one of the other flotillas or even advancing into the area of their own fleet, since the course of the latter converged dangerously with the assigned search bearing of Flotilla VII in particular. Therefore when contact was made there would be great uncertainty whether the vessels sighted were friend or foe. The division of the flotillas into individual groups operating singly, as originally planned, had to be abandoned for this reason by Commander von Koch, commanding Flotilla VII, and since a higher speed would have been detrimental, he proceeded at 17 knots on course SE. in close formation. In Flotilla V, under Commander Heinecke, steaming on course S. $\frac{1}{2}$ W., the order to proceed in individual groups was delayed on ac-

count of the change to the opposite flank, which was twice executed, and the interfering smoke, so that this flotilla did not deploy until after midnight. Unfortunately, it had been impossible for either the destroyers or light cruisers to establish the very essential contact with enemy main body before dark. Further, there was the danger that the flotillas, acting singly, might be annihilated by some of the numerous enemy light forces or possibly forced so far out of their sectors that they could not regain stations near their own main body in time for the expected renewal of the action at daylight. Although Admiral Scheer in ordering the night attack of the flotillas had assumed this risk, Commodore Michelsen still thought it of greater importance to have these boats again under his immediate orders at daylight. He therefore sent radio instructions at 11.30 p. m. for all boats to rendezvous by Horn Reef at 3 a. m. and prepare to rejoin the fleet in that vicinity. Only in case they were forced off their course were they permitted to take the return route through the Skagerrak, as Commandore Heinrich had already ordered for Flotilla II.

After dispatching Flotillas V and VII to attack, Commodore Michelsen still retained five boats of Flotilla IX and one boat of Flotilla III which he held for the time being in reserve. While he rejoining Scouting Division II with the *Rostock*, Commodore Heinrich, with six boats of Flotilla III which had meanwhile returned, followed with his flagship *Regensburg* in the wake of the *Derfflinger* and later the *Von der Tann* at the rear of the line. There he was joined at 11.27 by the *S-50*, of the Twelfth Half Flotilla. Although Commander Hollmann, commanding Flotilla III, requested that his boats be dispatched to the attack, Commodore Heinrich deemed it advisable to keep this flotilla in reserve to meet any unforeseen contingencies.

When Flotillas V and VII were dispatched on their mission, Battle Squadron II was leading the German fleet. Admiral Scheer thereupon decided against leaving this squadron in that position in the formation on account of their insufficient protection against torpedo attack. At 10.10 he had therefore ordered that it take position at the rear of the line. Although there was the danger that the enemy might regain contact from the northward at daybreak and bring pressure to bear on the rear, there would then still be sufficient time to assign this squadron another position in the formation. At 10.20 the *Westfalen*, leading Squadrons I and III, changed course to SW. by S., in order to pass astern of Squadron II, so that the fleet, contrary to the wishes of Admiral Scheer, was again delayed in its advance toward Horn Reef. Since Vice Admiral Schmidt, commanding Squadron I, did not appreciate the reason for this new turn to port [it seems as if this should be "starboard,"

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unintended

as it apparently refers to the *Westfalen's* change to SW. by S. at 10.20. The German text is obscure here and does not correspond to the German charts, which show the *Westfalen* changing course to the left at 10.20 rather than to the right], he was about to order the *Westfalen* to steer SSE., when Admiral Scheer again signaled the course of the fleet as SSE. $\frac{1}{4}$ E., and at 10.29 sent the following signal regarding the fleet formation, viz:

"Squadron II in rear of Squadron III, battle cruisers at the rear of the columns, Scouting Division II ahead, Scouting Division IV to starboard."

At the time Scouting Division II was to port and abeam of Squadrons I and III in the process of steaming up to position, while Scouting Division IV had been forced out to the starboard side of Battle Squadron II during the turn of the latter. Scouting Division IV thereupon dropped back to the rear of this squadron in order to take station as ordered on the starboard flank of Squadrons I and III. But Battle Squadron II had still apparently not received the order to take station at the rear of the column when at 10.30 the *Hannover*, leading ship of the division, sighted dead ahead the very faint and barely discernible smoke of four large ships and for a few moments a bright truck light. This was immediately reported by radio. What they had sighted were the armored cruisers of the British Second Cruiser Squadron which at the time was crossing a few miles ahead of the German Battle Squadron II in order to join forces with Admiral Beatty's battle cruisers. (In the list of messages appended to the Jutland dispatches, the following is quoted on p. 472: At 10.17 a signal from the *Duke of Edinburgh* to the *Shannon*: "Your truck light is burning.")

Rear Admiral Count von Dalwigk zu Lichtenfels thereupon sent a blinker message to Scouting Division IV to resume station ahead. At the same time Commodore Michelsen, who was steaming up with the *Rostock* and the Eighteenth Half Flotilla, which had been assigned the scouting sector SSW.—SW., ordered the latter to attack the enemy ships just reported, although the great distance and probable higher speed of the enemy as well as the impossibility of obtaining an insight into the situation ahead made the success of this attempt problematical from the start.

Rear Admiral Mauve, commanding Squadron II, had just at that time received the radio message directing him to take station at the rear of the column, but delayed the execution of the maneuver until the situation at the head of the column was further cleared up. At 10.50, receiving no further reports of the enemy ships which had been sighted, he turned his ships to the reverse course and at 11.10

made a further turn to bring his squadron in column astern of the *König*, which was in rear of Squadron III. [Taking station as shown in fig. 49, third and fourth divisions.] This belated evolution to put the fleet in night cruising formation might have led to a dangerous situation in the increasing darkness and the proximity of the enemy forces, particularly since the battle cruisers were still out of the column and cruising on the port beam of Squadron I. Not until 10.05 had it been possible for Admiral Hipper, who was with his staff on board the *G-39*, to transfer to the *Moltke*. Apparently he had not received the order to take station with his battle cruisers at the rear, for no sooner had he hoisted his flag on the *Moltke* when he made signal for 20 knots in order to reach the head of the column. But only the *Moltke* and *Seydlitz* carried out this order, since the *Derfflinger* was too severely damaged and the fires of the *Von der Tann* were too much in need of cleaning to permit a speed greater than 18 knots. Thus the distance between the first two battle cruisers and the latter increased rapidly. Thereupon the *Derfflinger* and *Von der Tann*, which were then abeam of the fleet flagship, again received orders to join the rear of the line, and in compliance with these orders took station astern of Battle Squadron II. Thanks to the expert seamanship of the squadron and flotilla commanders, as well as the commanding officers, the night cruising formation was assumed shortly after 11 p. m. Twenty-four ships, darkened and ready to open fire at any instant, were now in battle column at 16 knots on course SSE. $\frac{1}{4}$ E.

While the German night-cruising formation was based on the principle of attack, the British was determined primarily by the decision to avoid a night action under all circumstances. Seven minutes after Admiral Scheer had given orders for the disposition of his forces for the night (10.17) Admiral Jellicoe sent the following radio for the night-cruising formation of the British fleet: "Take station in accordance with organization No. 2; form squadron columns disposed abeam to port, 1 mile apart." As a result of this order, the fleet, which had maneuvered during the day in columns of six divisions, was regrouped in three squadron columns for the night cruising, to which the Fifth Battle Squadron added a fourth column on the eastern flank. [Fig. 50.] By reducing the six columns to three (or seven columns to four, if the Fifth Battle Squadron is counted in), with greatly reduced interval between columns, he hoped to increase the difficulty of the German flotillas in finding the fleet, avoid mistaking units of his own fleet for enemy ships, and to maintain closer coordination of his forces during the night. He thereby took the risk that the slightest counteroffensive on the part of the enemy would involve his forces in an extremely difficult situa-

tion. If one of the flank divisions were to be engaged in action or forced to turn toward the other columns to avoid a torpedo attack, the whole fleet would be thrown into the worst possible confusion. There was therefore every reason to avoid an action at all costs while in this formation. But instead of employing his destroyer flotillas for offensive operations during the night, the British commander in chief ordered them to take station as a screen in rear of the fleet at 10.27, at a distance of 5 miles astern of the battleships. He further feared that, owing to the known proximity of the German fleet, his own force might be mistaken for enemy ships and fall a victim to the attacks of his own destroyer flotillas. [The British formation ordered is shown in fig. 50, but probably was not actually assumed until about 10 p. m. G. M. T.]

Having decided to assume no risks during the night, the British commander in chief took particular care to neglect no opportunity for bringing the German fleet to battle at daybreak. The possibility that the latter might take the line of retreat around Denmark through the Cattegat could, in his opinion, be excluded. Admiral Scheer was 344 miles distant from the Little Belt when the daylight engagement was broken off, and if this route were chosen the Germans would then give the British an entire day for the pursuit and renewal of the engagement. The greatest fear of the British fleet commander was therefore that during the night Admiral Scheer would attempt to break through to the eastward either ahead or behind the British battle fleet. There were three possible courses on which the enemy might reach the protection of his own bases. The first lay past Horn Reef over the Amrum Bank, the second between the British and German mine fields to the westward of Helgoland, while the third lay along the coast of Friesland from the Ems to the Jade. All three routes were known to the Admiralty and the British commander in chief. Of the three routes, the course past the Ems along the coast, was the least probable for the German fleet, since this was considerably longer than either of the others. The course past Helgoland would have given the German fleet a distance of 175 miles to steam from their 10 p. m. position, while to Horn Reef the distance was only 142 miles. Although every probability pointed to the enemy taking this last route, Admiral Jellicoe, for some extraordinary reason chose to steer a course with his fleet which would put him in position to cut off the German retreat in case the latter took the route to the Ems or Helgoland. In order, however, not to leave the blocking of the route past Horn Reef to the three submarines alone which had taken station near Vyl Lightship and were hardly capable of fulfilling this mission, he ordered the mine layer *Abdiel* at 10.32 to proceed at full speed in advance and, in accordance with orders previously issued, to strengthen during the

night the mine fields which had already been laid to the southward of the station occupied by the British submarines. The commander in chief placed his greatest hope of preventing the Germans from taking the route past Horn Reef on the screen of destroyer flotillas in rear of the fleet. He was of the opinion that in the event of the Germans attempting to pass the rear of the battle fleet a mass attack of these boats would certainly force the enemy off to the westward.

As a result of the disposition of the two forces for the night there arose the following peculiar situation: The German fleet was cruising to the southward close behind the British, whereby the *Westfalen*, leading the column, was, at 11.30, only 6 miles on the port quarter of the British battle cruisers and the same distance directly abeam of the western column of the closely crowded enemy battle fleet. Both fleets were on slightly converging courses, and it would not be long before these courses crossed. [Fig. 50 shows the positions of the two fleets very accurately.]

As a result of the numerous changes of course made by the battle fleet in taking position for the night-cruising formation, the *Moltke* and *Seydlitz*, of Scouting Division I, and the *Frankfurt* and *Pillau*, of Scouting Division II, were unable to attain their position as intended at the head of the column and were still on the left flank of the battleships, trying to take position ahead of the line. Even Scouting Division IV was at the time on the port side of the battleship column, although the commander of this division, Commodore von Reuter, assumed that he was to the southwestward of his own main body, in the position he had been ordered to take as screen on the right flank. As a result of condenser trouble the *Elbing* had not been able to follow Scouting Division II and had joined forces with Scouting Division IV, together with the *Rostock*, flagship of the first leader of destroyers. (In Scouting Division IV the following vessels therefore followed the *Stettin*, viz: *München*, *Frauenlob*, *Stuttgart*, *Hamburg*, *Elbing*, and *Rostock*. Meanwhile Scouting Division II was comprised only of the *Frankfurt* and *Pillau*.) Still further to the eastward and astern was Flotilla VII. (Leader: *S-24*. Thirteenth Half Flotilla: *S-15*, *S-17*, *S-20*, *S-16*, and *S-18*; Fourteenth Half Flotilla: *S-19*, *S-23*, *V-189*, *G-172*. *V-186* had returned to Helgoland during the forenoon on account of condenser trouble.) At 10.30 this flotilla had passed astern of Battle Squadron III in order to stand out on its course to attack the enemy, had been mistaken by a ship of Battle Squadron III for enemy destroyers, and fired on at 1,800 meters. One salvo struck within 50 meters of the *S-23*, and the flotilla commander had thereupon changed course to SE. in order to increase the distance from his own battle fleet.

At this time, however, British destroyers approached the German cruisers and destroyers, which were still on the right flank of the battleships.

These British destroyers had received orders at 10.27 to take station 5 miles astern of the battleships and were disposed as follows: On the western flank the Eleventh and Fourth Flotillas, while farther to the eastward were the Eighth, Ninth, Tenth, and Twelfth Flotillas. These boats had just steamed to the northward between their own battleship columns and were about to turn to the southward to take their assigned stations in the formation when the German Flotilla VII approached from the NW. At 10.50, therefore, the *S-24*, flotilla leader of the latter group, sighted a column of destroyers dead ahead, which were the boats of the British First Half Flotilla of the Fourth Flotilla, led by the flotilla leader *Tipperary*, and soon thereafter six other destroyers were sighted to port. (The First Half Flotilla, led by the *Tipperary*, consisted of the *Spitfire*, *Sparrowhawk*, *Garland*, and *Contest*; the second, led by the *Broke*, comprised the *Achates*, *Ambuscade*, *Ardent*, *Fortune*, *Porpoise*, and *Unity*.)

While still at a distance of 400 to 500 meters these boats were mistaken for destroyers of the German Flotilla II. When the recognition signal made by the German flotilla leader remained unanswered, the *S-24*, *S-16*, *S-18*, and *S-15* fired one torpedo each at 10.58. But whether they were warned by the flash of the torpedoes leaving the tubes or by the splash of the torpedoes in the water, the enemy at all events turned away on the first shot, so that the other boats could not fire, and none of the torpedoes made hits. [The positions of the Fourth Flotilla are shown in figs. 48 and 49, and their action with Flotilla VII is also indicated.] Thereupon the flotilla commander, on the correct assumption that he had made contact with the enemy protective screen in rear of the battle fleet, turned to the southward in order to pass clear of the western flank of this screen without being betrayed by searchlights or gunfire. In the British flotilla, fire was opened only by the destroyer *Garland*, which boat also reported the enemy flotilla by radio at 11.02. Shortly thereafter a few torpedoes passed by the *Garland* and the enemy disappeared from sight. The fact that the British destroyers did not follow the Germans could only be explained on the German side by the assumption that the British were prompted by the same desire as the Germans, i. e., to approach the enemy battle fleet for attack without being sighted. In reality, the British Fourth Flotilla had just turned to the southward and was on the same course as the German flotilla.

At the same time the two cruisers of the German Scouting Division II, somewhat farther to the south and westward, clashed with the British Eleventh Flotilla, which was being led personally by Commodore Hawksley, on the light cruiser *Castor*. (The Eleventh Flotilla consisted of the light cruiser *Castor*, and the destroyers *Ossory*, *Mystic*, *Morning Star*, *Magic*, *Mounsey*, *Mandate*, *Minion*, *Martial*, *Milbrook*, *Moon*, *Marne*, *Manners*, *Michael*, and *Mons*.) The leaders of the latter were still on course north when they were sighted by the *Frankfurt*, and were mistaken for five cruisers and reported as such by radio. These could not have been boats of the German Flotilla II, as the latter were farther to the northward. Thereupon the *Frankfurt* and *Pillau* each fired a torpedo at 1,000 meters, and, without firing or displaying any lights, turned off to the westward in order not to draw the enemy destroyers now sighted behind the light cruiser toward their own battle fleet. The British flotilla thereupon turned off to course south. At this time Scouting Division IV steamed up astern of Scouting Division II, and the *Castor* sighted at 11.05 three or more cruisers on her starboard hand, of which the leading ship of the group appeared to be an armored cruiser. The latter made the British recognition signal, which increased the doubt as to whether these ships were friend or enemy, and immediately thereafter flashed their searchlights and opened on the *Castor* with rapid fire at 1,000 meters. [As noted in fig. 50, the forces engaged on the German side were Scouting Division IV, plus *Elbing* and *Rostock*.] This fire was returned by the latter at 11.15. The ships which opened fire were the *Hamburg* and *Elbing*, at the rear of Scouting Division IV. On the *Hamburg* the radio antenna was torn away, the after stack, engine-room deck light, and port longitudinal bunker pierced, three firemen and the crew of No. 3 gun severely wounded. On the British cruiser *Castor* a shell set one of the boats afire, thus lighting up the ship and six more hits were sustained. All signal apparatus was put out of commission, 12 men killed and 23 wounded, the side armor protecting the vessel from more severe casualties. In turning away, the *Castor*, *Magic* and *Marne* each fired a torpedo, one of which passed under the *Elbing* without exploding in spite of all efforts on the part of the latter ship to turn clear. The other destroyers, blinded by the gunfire of the *Castor* and still under the erroneous impression that they were under fire from their own ships, did not fire. Searchlights were extinguished, and the leader of the Eleventh Flotilla decided against making a second attack as he did not wish to lose contact with his own battle fleet, which was steaming ahead. Apparently he deemed it more important to be with his fleet at the time of the expected action at daybreak than to attempt to obtain results during the night.

During the progress of this action the battle cruisers *Moltke* and *Seydlitz* approached Scouting Division IV from the other side, and about 1,000 meters on the port beam of the head of Battle Squadron I, passed sharply across the bow of the *Stettin* (11.35). In order to avoid collision the latter was forced to slow down, while the *München*, *Frauenlob*, and *Stuttgart* sheered out to port. At this time four enemy cruisers of the "city" class were sighted on the port quarter distant 3,000 meters on a slightly converging course. (These were the ships of the British Second Light Cruiser Squadron.) [Notes D and G, fig. 50.] These ships were about to take station astern of the battleships and had observed the engagement of the *Caster*, when they were challenged by the German ships to display the recognition signal. In reply to this the *Dublin*, second ship in line, opened fire at 700 meters. At the same time about a dozen searchlights flashed from the German ships and the *Southampton* and *Dublin* were overwhelmed by a hail of fire. On the other hand, the *Nottingham* and *Birmingham* did not light their searchlights, and not being under fire were able to return the enemy fire with greater effect. The engagement which now set in was at such short range that no salvo could miss, and grew to terrific intensity. The *Stettin* and *München* and the *Frauenlob* and *Stuttgart* concentrated their fire on the two leading ships, and although they were inferior in fighting effectiveness, fires soon broke out on the *Southampton* and *Dublin*. On the British flagship the searchlights were extinguished and the guns ceased to fire. The *Stettin*, Commander Rebenburg, was about to turn off to fire a torpedo when that ship as well as the *München*, Commander Bocker, received two hits. On the *Stettin* one searchlight and the battle-order transmitter were put out of action, while another shell burst a steam line, causing the view to be completely obscured. Commodore von Reuter then turned away to draw the enemy toward his own battle cruisers. The other ships were too closely crowded together on line of bearing to be able to fire torpedoes, with the exception of the *München*, which ship, turning towards the enemy with the *Frauenlob*, was able to fire one torpedo. On the *Hamburg*, Commander von Gaudecker, 10 men were killed, while the commanding officer, navigator, and some men on the bridge and at the forward gun were wounded. The *Elbing*, Commander Madlung, received one hit which wrecked the radio station, killing 4 men and wounding 14. At this moment the sound of an explosion drowned out the noise of gunfire and the shriek of the shell. Shortly after sighting the German ships the *Southampton* had fired a torpedo while her upper deck and bridge were in a hail of shell from the enemy. This torpedo found its target, and hit the *Frauenlob*, Commander Hoffmann, in the port auxiliary machinery space. The electric lights went out, the ammu-

munition hoists failed, and the ship listed far over to port, causing the shell in the magazines to shift while enemy shellfire set the after part of the ship afire. But nothing shook the heroic determination of the crew. Standing in water up to their waists the crew of No. 4 gun, under Boatswain Schmidt, continued to fire until the flames and water made an end to the struggle. The cruiser capsized and giving three "hurrahs" for the Kaiser and the Empire, the commanding officer, 11 officers, and 308 men sacrificed their lives to their country. **[An inspiring episode.]**

The *Stuttgart*, Commander Hagedorn, was barely able to avoid the sinking *Frauenlob*, by sheering out to starboard. In doing so she lost contact with Scouting Division IV, and sighting later one division of the Battle Squadron I to starboard, joined forces with this group. The *Hamburg* was also forced out of formation by the fact that the battle cruiser *Moltke* crossed sharply across her bow, while in the midst of the action. Only the *Elbing* and *Rostock*, passing ahead of the *Hamburg*, were able to rejoin the *Stettin* and *München*. In the confusion caused by this crossing of courses the *Seydlitz* lost the truck light of the *Moltke* and, not being able to maintain the speed of 22 knots, took station ahead of the fleet and, at a distance of 10 miles to the eastward of the latter, proceeded independently toward Horn Reef.

Meanwhile the British Second Light Cruiser Squadron had disappeared from view of the German ships. Fired on with ninety-two 10.5 shell from the *München* alone, these ships had suffered severely. On the *Southampton* the German shell had annihilated the crews of the searchlights and guns, killing 35 and wounding 41 men. The ammunition was constantly exploding, and for awhile it appeared as though the whole ship would blow up. On the *Dublin* fires raged between decks. A continuation of the action was out of the question. Before the *Frauenlob* went down these ships turned away to the eastward and continued on this course until they joined up with the Fifth Battle Squadron. After extinguishing the fires on the *Southampton* and *Dublin*, this force turned to course south, in rear of the battleships. In this maneuver the *Dublin* lost contact. On that ship the navigator had been killed and all charts destroyed, and it was not until the following morning that this ship was able to rejoin the Second Light Cruiser Squadron. As for the commander of this squadron, Commodore Goodenough, who had distinguished himself by such excellent scouting service up to that time, it was impossible for him to make a report of this action, as the severely damaged flagship was unable to send a radio message.

During these engagements the *Moltke* and *Seydlitz*, which were steaming up between Scouting Division IV and the German battle fleet, had become separated and steamed thereafter to port and star-

board, respectively, ahead of the fleet, on course south. Scouting Division IV was still firing at 11.30 when the *Moltke*, in attempting to rejoin the fleet, sighted four large enemy ships to port which appeared between this battle cruiser and her own main body and were apparently maintaining contact with the latter. Without suspecting that these were the rear ships of the British Second Battle Squadron on the right flank of the British fleet, the *Moltke* turned away and was forced to abandon any further attempts to rejoin her own battle fleet after repeatedly making contact with this same enemy force at 11.55 and 12.20 a. m. Unfortunately this occurred so suddenly each time that the torpedo tubes could not be brought to bear without remaining too long in the zone of fire of this superior enemy force. This ship thereupon turned to course south in order to avoid further dangerous contacts, and was able at 1.30 a. m. to rejoin the German battle fleet. The *Seydlitz* also sighted three enemy ships at 12.45 to port distant 1,500 meters on course south. This ship, being very much reduced in fighting efficiency, turned off to the northward after making the English recognition signal, but was again forced to turn off to the eastward to avoid three destroyers which were at first thought to be boats of the German Flotilla II. At 1.12 a. m. the *Seydlitz* was finally able to resume course toward Horn Reef at 21 knots, and was able to observe from a great distance to starboard a number of actions in which the German leading battleships appeared to be involved. At 1.08 this ship reported the sighting of enemy vessels by radio and designated them as battle cruisers, but it was later determined that they must have been three ships of the *Malaya* class. The *Moltke* was unable to report contact with the enemy ships until 3.27 a. m., as her radio had been disabled during the daylight engagement, the message then being sent through the destroyer *G-39* to the commander in chief. Unfortunately neither of these message reached the destroyer flotillas which had been dispatched to attack enemy forces. [It is remarkable that two battle cruisers sighted the British battleships, while the destroyers failed.]

Up to midnight the German commander in chief had received reports of contact with light forces only. None of the flotillas which had been sent to attack had encountered other than light cruisers and enemy destroyers, and the position of the enemy battle fleet was still as doubtful as before. Admiral Scheer could by no means assume that the actions reported were with the rear guard of the enemy battle fleet; on the contrary, everything pointed to the conclusion that the British commander in chief had detached his destroyer flotillas from the main body and that these, supported by light cruisers, had been ordered to attack the German fleet. Admiral Scheer saw no necessity for turning away from these destroyer attacks, owing to the well-known excellent training of the fleet in

torpedo defense tactics, particularly since his principal mission was to arrive at Horn Reef at daybreak. He therefore continued on his course regardless of the sporadic actions which broke out on the left flank, determined to defy any counteroffensive, no matter how strong the opposing force. Thus, the head of the German battleship column arrived at midnight at a point which had been passed barely a quarter of an hour earlier by the British, and, without anyone suspecting the connection, began to advance between the enemy battle fleet and the screen in rear of the latter. [Fig. 51.] Even at this time the light cruisers *Rostock*, *Stuttgart*, *Elbing*, and *Hamburg* had not yet succeeded in getting clear of their own battleships and resuming station ahead, and were on the port beam of the leading division and thus forming a sort of screen on the left flank so far as the battleships were concerned, but which was dangerous to the light cruisers in the event of contact with enemy forces.

On the English side the Fourth Destroyer Flotilla, under Captain Wintour, following the flotilla leader *Tipperary*, was nearest to the German main body. About 7 miles to the eastward of this group was the force under Captain Farie, with the cruiser *Champion*, with seven destroyers of the Thirteenth and two of the Tenth Flotilla. (Thirteenth Flotilla: *Obdurate*, *Maresby*, *Nerissa*, *Narborough*, *Nicator*, *Pelican*, *Petard*; Tenth Flotilla: *Termagant*, *Turbulent*.) In the same latitude and close aboard the *Champion* on the port side were four destroyers of the Harwich Ninth Flotilla and one of the Tenth Flotilla. (Ninth Flotilla: *Lydiard*, *Liberty*, *Landrail*, *Laurel*; Tenth Flotilla: *Morris*. The *Moorsom* had been dispatched to port on account of lack of fuel as a result of a hit received in the daylight engagement.) On the other hand Captain Stirling, with the *Faulkner* leading the Twelfth Flotilla, was farther in rear to the northeastward, since the battleship division under Admiral Burney, which he was following, could not maintain speed owing to the damaging of the *Marlborough* in the day engagement and had gradually dropped to the rear. (Twelfth Flotilla: *Marksman*, *Obedient*, *Mindful*, *Marvel*, *Onslaught*, *Maenad*, *Narwhale*, *Nessus*, *Noble*, *Opal*, *Nonsuch*, *Menace*, *Munster* and *Mary Rose*.)

Such was the situation when toward 12.30, Captain Wintour, with the seven boats of the Fourth Flotilla, sighted to starboard the vague outlines of a line of large ships on southeasterly course which appeared to be drawing ahead of the destroyers. Whether these were friend or enemy was impossible to determine, and the flotilla maintained course for some minutes with the torpedo tubes ready to fire and trained out to starboard. On these ships all remained quiet, and

only when they had approached to within 1,000 meters and were about to cross the course of the destroyers did Captain Wintour venture to flash the recognition signal. A raging, rapid fire was the answer. The first salvo struck the *Tipperary* in the forecastle and one shell hit the main steam line, while this boat, the *Spitfire*, and three following destroyers turned away, firing torpedoes at 900 meters. The *Spitfire* was about to load for a second shot when further shells carried away the falls on the loading davits and the crew at the tube were killed. The *Broke*, flotilla leader of the Second Half Flotilla, not having been picked up by the enemy searchlight, approached for attack, and fired one torpedo. Turning with hard over rudder, this boat was nearly rammed by the ship astern, the *Achates*. The *Tipperary*, overwhelmed by a cascade of shell in the beams of the German searchlights, soon burst into flames, and as a terrible flaming torch, lighted the German fleet on its way; she was soon thereafter to be accompanied by others in distress. The *Garland* attempted to go alongside to rescue the crew of the *Tipperary*, but was driven off by the heavy enemy fire and turned away to the eastward. The other destroyers in the rear were still in doubt as to whether or not the First Half Flotilla had not accidentally attacked British ships, until one of the German searchlights happened by chance to pass over its own line. This moment sufficed, however, to dispel all doubts. Passing the sinking *Tipperary*, the *Ambuscade* fired two torpedoes, and the boats astern also attacked, while the *Unity* lost contact; shortly thereafter an explosion was heard from the German column and a gap was noted in the previous unbroken line of searchlights directed at the destroyers. The flotilla had not chanced upon a screen but had been given an opportunity to attack the fleet itself such as had not been realized by the German flotillas at any time during the war.

But the British destroyer commanders, in spite of their bravery, showed themselves to be tactically unequal to the situation, while the torpedo defense of Battle Squadron I, after the long periods of training during peace time, showed no deficiencies. The first salvo fired by the *Westfalen* at 12.30 hit the forecastle of the *Tipperary* and carried away the bridge. At the same time the *Westfalen* turned to starboard eight points to avoid a torpedo fired by that ship and in five minutes fired ninety-two 15-cm. (6-inch) shells and forty-five 8.8-cm. (3.5-inch) shrapnel at ranges from 1,800 to 1,400 meters. On the bow of the enemy ship the number "G-60" was plainly discernible in the searchlight beam. The *Nassau*, *Rheinland*, *Rostock*, *Elbing*, and *Hamburg* and the *S-32* astern of the *Rostock* joined in this fire and opened on the enemy destroyers which were following, while the *Stuttgart* from a position to one side illuminated the targets with her searchlights and confirmed the

spotting observations. The *Tipperary* defended herself with noteworthy heroism, but the easily inflammable oil soon caused the British ship to be enveloped in a mass of flame, while one after another the ammunition cases exploded and shot after shot struck forward; the after gun fired to the last man. At this time the *Spitfire*, probably with other destroyers, approached to relieve the fire on their flotilla leader and opened fire with their guns on the German searchlights. From 12.30 to 12.36 a large number of shells struck near the forward stacks of the *Westfalen*, *Nassau*, and *Rheinland*, which put some of the searchlights out of action and caused a large number of casualties among the personnel on account of the splinters and shell fragments. On the signal bridge of the *Westfalen*, seven men, including the commanding officer, were slightly wounded and one severely wounded; on the *Nassau*, Captain Klappenbach, a shell killed 1 officer and 10 men; while on the *Rheinland*, Captain Rohart, as the result of a single hit, 10 men were killed and 20 wounded.

Another shell hitting the *Nassau* put two searchlights of the after group out of commission, while on the *Rheinland* a shell struck the armor of the conning tower without doing much damage. [This demonstrates the value of guns as well of torpedoes in night destroyer attacks.] But the *Spitfire* was also approaching destruction. Blinded by the flames from the flotilla leader, this ship realized too late that the three leading German battleships had resumed their original course. It was about 400 meters on the port beam of the *Nassau* on an opposite course, when the latter turned with hard over rudder toward the destroyer. The latter attempted to turn to starboard but was caught squarely by the stem of the battleship. The two vessels struck with a speed of 20 meters per second. The *Nassau* listed from 5° to 10° to starboard, so that the shell fired from the forward turret could only pass through the bridge and forward stacks without detonating. The blast was sufficient, however, to carry away the bridge, searchlight platform, and forward stack of the destroyer. Thirty-two men were killed and three wounded, while the bow was stove by the collision for 20 meters down to the second underwater bulkhead and caught afire. But in spite of all this the destroyer could be kept afloat contrary to expectation, and was finally able to return to port on her three remaining boilers. On the *Nassau* this boat was considered to have been sunk after she had left part of her bridge hanging to the torpedo net of the battleship and disappeared in the darkness after two heavy explosions. On the other hand, the battleship had suffered little damage; one 15-cm. casemate gun had been torn from its supports and a 3.5-meter hole made in the bow above the water line. Before this hole could be made water-tight the ship was reduced in speed to

15 knots and tried in vain to resume station between the *Westfalen* and the *Rheinland*.

In the meanwhile the German cruisers which were in between their own battleships and the enemy destroyers had become involved in a difficult situation. Forced to turn to starboard to avoid the torpedoes fired by the English they found their way blocked by Battle Squadron I. The *Rostock* was finally able to ease in between the *Nassau* and *Rheinland* when the latter gave way to starboard, but the *Elbing*, blocked by the *Stuttgart*, was forced to break through the line of battleships ahead of the *Posen* (Captain Lange). The latter ship realized too late the intention of the light cruiser in the confusion of the battle and was only able to ease the shock of the unavoidable collision. The *Elbing* was struck on the starboard quarter and disappeared rapidly from view. Although the shock of collision had been very slight, a leak commenced in the cruiser which soon filled both engine rooms. The lighting plant and steering engine were put out of commission, as well as all interior communications. The ship listed 18° and the port battery could only be made ready for action again after the ship had been put on an even keel by counter flooding. For the time being the cruiser drifted astern on the starboard side of the German line, unable to maneuver or fight. [The ease with which the *Elbing* sank is in sharp contrast to the sturdiness of the *Spitfire*. See note C, fig. 51-A.] The *S-32* had also received two direct hits, one of which carried away the main steam line, while the other detonated near the bridge, so that this destroyer lay disabled near one of the burning English ships. On the latter ship eight heavy explosions were noted. At 1.30 a. m. the *S-32* was again able to get her engines in condition for operation and using salt feed for the boilers attempted to escape on course east to the protection of the coast.

Meanwhile Vice Admiral Ehrhard Schmidt had withdrawn the unengaged ships of his squadron from the danger of torpedo attack by a simultaneous turn to course W. by S. But scarcely had the leading ships, *Westfalen* and *Rheinland*, resumed their previous course when they were forced to open fire with their port torpedo defense batteries. After the loss of the *Tipperary*, Commander Allen on the *Broke*, had noted that about six destroyers were still following his ship and had turned with these to course south. These destroyers were the *Sparrowhawk*, *Contest*, *Achates*, *Ambuscade*, *Ardent*, *Fortune*, and *Porpoise*. About five minutes after the first attack he noted a large vessel with two smokestacks and heavy boat cranes about six points to starboard which appeared to be about to cross the course of the flotilla. The recognition signal made by the *Broke* was answered by the flash of a number of searchlights and a hail of shell.

This was the cruiser *Rostock*, which was cruising about 1,000 meters on the port beam of the leading ship of Squadron I, and being the first ship to recognize the danger, opened fire at 12.40 a. m. at 1,600 to 1,400 meters. At 12.50 the *Rheinland* and the *Westfalen* joined in this fire. The latter fired thirteen 15-cm. shell at 1,400 meters, as well as thirteen 8.8 shrapnel, while the former fired at 800 meters on the second destroyer. Both ships turned with full speed to the westward to avoid torpedoes, but before the other ships could join in the fire the force of the destroyer attack had been broken. After only 45 seconds the forecastle and bridge of the leading boat were in flames. The *Broke* was therefore forced to turn off to port before she was able to fire a torpedo. The *Sparrowhawk* was approaching from this side, but before the left rudder could be eased a shell struck the bridge, killing the entire personnel at that station, while the engine telegraph failed and the rudder jammed. The *Sparrowhawk* then realized to her dismay that the *Broke* was headed directly for her at full speed. The *Sparrowhawk* was struck just forward of the bridge, the bow of the *Broke* passing through the hull to the center line. Both destroyers were hanging together in a helpless condition in the midst of the enemy fire, while 23 men from the *Sparrowhawk* jumped and were thrown over onto the *Broke* by the force of the collision. The other destroyers could avoid collision only by a hair's breadth, while the *Contest* was unable to sheer out and cut off 2 meters of the stern of the *Sparrowhawk*. Finally, the *Broke*, after suffering severe losses, was able to get clear and withdraw at slow speed to the northward out of the range of the enemy guns, while the *Sparrowhawk* drifted, disabled, to the northwest. In the blinding glare of the searchlights and the enemy shell the other destroyers were unable to obtain a clear estimate of the situation. Only one thing seemed certain. The leading German ships were of the *Westfalen* class and there could be no further doubt that the flotilla had made contact with the van of the German battle fleet as the latter was about to break through to the eastward in the wake of the British battleships. That the attack had not been entirely ineffective was shown by an explosion in the German line. But here again it was not a battleship but a light cruiser which had been hit. In the attempt to break through the line to starboard between the *Westfalen* and *Rheinland* to get clear of the line of fire of the latter, the cruiser *Rostock* had received two hits from gunfire and one torpedo hit. This torpedo, which was fortunately running on the surface, struck the cruiser in No. 4 boiler room. The steam lines were damaged, the lighting plant put out of action, and the steering engine failed, while a collision was only avoided by the fact that the battleships gave way to star-

board. The *Rostock* was able to reach a position of security. The turbines were forced to stop, two bottoms and three bunkers filled with water, and two firerooms were flooded. One compartment was drained immediately, but 930 tons of water remained in the ship. The ship listed 5° to port, and by intermittent stopping and going ahead was able to follow the main body slowly to the southward. [In fig. 51-B the *Rostock* was hit in the 11.45 encounter rather than the first action at 11.30. The loss of *Wiesbaden*, *Frauenlob*, *Elbing*, and *Rostock* would seem to show that the German light cruisers were less substantially built than the British ships of this type, which on many occasions suffered severe injuries without being lost.]

Meanwhile, after the collision between the *Broke* and the *Sparrowhawk*, the command of the Second Half Flotilla had devolved on Commander Hutchinson, on the *Alchates*, and, followed by the *Ambuscade*, *Ardent*, *Fortune*, *Porpoise*, and *Garland*, he turned to the eastward and when about 3 miles from the point of the collision turned again to course south to regain contact with his own battle fleet. In this maneuver the *Contest*, with her bent over bow, had lost contact. The other destroyers were again approaching the head of the German column.

At 1 a. m. the *Westfalen* exchanged recognition signals with two light cruisers of Scouting Division IV and had to sheer out to allow these vessels to pass ahead. Shortly thereafter an enemy destroyer was sighted approaching on the port hand. The *Westfalen* made the recognition signal and, opening fire, turned sharply away to starboard with full speed. In the beam of the searchlights the number "30" was distinctly recognized. The first salvo carried away the bridge, the mast went by the board, and, after firing seven 15-cm. shells and eight 8.8 shrapnel in 28 seconds, the *Westfalen* was able to cease fire, as the destroyer was in flames and fire had been opened by the *Rheinland*. The latter also turned away, but was forced to cease fire when one of the German light cruisers came in the line of fire. At 1.13 a torpedo passed within 50 meters to one side of the *Rheinland*, while the *Posen*, *Oldenburg*, and *Helgoland* also joined in the fire on the three leading destroyers at 1,600 and 1,800 meters. Before these were shot into a disabled condition and passed out of sight in flames, two torpedoe tracks were sighted approaching the *Posen*, and the ship turned away. At the same time a shell struck the forward searchlight group on the *Oldenburg*. Shell fragments wounded the commanding officer, Captain Hopfner, killed the officer directing the fire of the secondary battery, Lieutenant Commander Rabins, the searchlight and signal officers, and four men, as well as wounding three other officers and nine men, including the helmsman and the watch officer who was standing in lee

of the conning tower. Splinters went through the sight slits of the fire-control station, and wounded two other men. The *Oldenburg* was in danger of collision with the ships ahead and astern, owing to the loss of the ship-control personnel, when the captain, bleeding profusely, jumped to the helm and brought the ship back on her course while the battery continued to fire uninterruptedly and finally sank the destroyer 30.

When the German ships opened with their torpedo defense fire shortly after 1 a. m., the *Achates* and *Ambuscade* turned on course east, the latter firing her third torpedo at the ships which were concentrating on the *Ardent*. On one of these ships a red flame was observed near the water line and soon after the searchlights were extinguished. Further, the *Garland* and *Ardent* fired at the same time one torpedo each at the leading German ships from a favorable position 1,800 meters on the port bow, while astern of these destroyers the *Fortune* and *Porpoise* lay in the midst of very heavy fire from the enemy capital ships. As the *Ardent* turned away to port and passed the *Fortune* the latter was in flames but was defending herself bravely by gunfire against the superior enemy forces. The *Porpoise* was struck by a shell at the same time. One torpedo air flask exploded, the main steam line was carried away, and the rudder and engine-room telegraphs failed to function, but the destroyer was able to find protection in the smoke and steam from the burning *Fortune* and, steaming slowly to N. by W., was able to draw out of range of the German gunfire. The *Garland* sought in vain to make contact with the other boats of this flotilla, which had now ceased to exist, and finally joined up with the *Contest*, which boat was, however, unable to make more than 20 knots.

Meanwhile the *Achates* and *Ambuscade*, thinking they were being pursued by enemy light cruisers, proceeded singly to the northward. What they mistook for an enemy cruiser was probably in reality none other than the *Black Prince*. In the day action this vessel had lost all contact with the First and Second Cruiser Squadrons after the sinking of the *Defence*, and, with much reduced speed, probably as the result of hits received, had followed the British battle fleet at a great distance astern and in this manner had run into the midst of the destroyer flotillas after dark. When this vessel sighted a long line of ships on the port beam she probably mistook them for ships of the British battle fleet and stood over to join forces with them. Never was an error to be more dearly paid for than in this case. While the leading battleships in the German column were engaged in driving off the attack of the Fourth Flotilla, the *Nassau*, which was pocketed on the port side of the column, sighted, together with the *Thuringen* soon after 1 a. m., a ship on the port beam with four stacks which did not answer the recognition signal but turned away to port. In the beams of the searchlights an enemy armored

cruiser was recognized distant 1,000 meters. The *Thuringen*, Capt. Hans Kuesel, immediately opened fire, and of 10 shots from the main battery, 27 from the secondary battery, and 24 from the torpedo defense battery, every shell made a hit. The shell tore through the ship from aft forward, while the latter was turning, and the British cruiser was unable to return the fire. Soon the flames from this ship reached the mastheads. At 1.07 the *Ostfriesland*, Captain von Natzner, joined in this fire, followed at 1.10 by the *Nassau*. At 1.15, when the *Friedrich der Grosse*, Captain Fuchs, opened fire, the ship was only a burning funeral pyre, a gruesome sight, blazing like a torch as it passed the line of German ships until, after several severe explosions, it finally went to the bottom with all hands. Thereupon the *Nassau* turned toward Battle Squadron III to avoid the wreck of the *Black Prince*. The *Kaiserin* was forced to sheer out and collision was only avoided by the *Nassau* going full speed astern; she was able later to join the column astern of the *Hessen*.

Now, however, a second torch flared up to port near the head of the battleship column. In the search for the other destroyers of the flotilla, the *Ardent*, the only remaining undamaged boat of that group, had sighted smoke clouds ahead on the starboard hand and had approached these at the same time as the *Black Prince*. Only when it was too late to get clear did this boat sight four German battleships approaching rapidly from the starboard side across and about to cross her course. With quick decision the destroyer advanced to attack and fired a torpedo at the leading ship while the explosions on the *Black Prince* were still resounding. The *Westfalen* was at the head of the column. At a range of 800 meters the searchlights of that battleship picked up the destroyer on the bow of which the number "78" was plainly visible. While still in the beam of light this boat flashed the British recognition signal by Morse code. The *Westfalen* turned away just as the torpedo was fired by the destroyer, while the first salvo fired at the same time carried away the bridge and forecastle of the *Ardent*. After firing the torpedo-defense battery for 4 minutes and 20 seconds, with an ammunition expenditure of twenty-two 15-cm. shell and eighteen 8.8 shrapnel, the destroyer was out of action. The boilers and steam lines of the *Ardent* were blown up, and while the battleship searchlights were extinguished and the ships vanished, the destroyer remained behind a total wreck.

Meanwhile, at 1.10 Commodore Heinrich, on his flagship *Regensburg* at the rear of the line, had sighted a burning ship drifting past and dispatched the *S-53*, *S-54*, and *G-88*, which were astern, to the wreck. While on this mission the *S-54* was called by the badly damaged *Rostock* and returned to the assistance of the latter vessel, while the *S-53* and *G-88* approached the British flotilla leader

Tipperary, which was a mass of flame from stem to stern. The *S-53* rescued nine English from a raft near the wreck, and when about to rejoin her own forces this boat sighted on the port hand ahead another craft which did not answer the recognition signal. The *S-53* was about to fire a torpedo when the suspected ship sent the following Morse signal: "Here, *Elbing*, am disabled, please come alongside." But before the destroyer could carry out this order a third ship was sighted to starboard which in the light of the searchlight beam was recognized as an English destroyer with four stacks. A shallow torpedo shot fired either by the *S-53* at 600 meters or *G-88* at 300 meters passed under this vessel without exploding, while the gunfire directed against it was returned only by a few scattered shots. This British destroyer which the Germans had sighted was the severely damaged flotilla leader *Broke*. Of the crew of this vessel 42 men were killed, 6 missing, 14 severely wounded, and 20 lightly wounded. But to the astonishment of the English, the German torpedo boats turned off after a few salvos in which the destroyer received two hits, and proceeding slowly to the northward, thus allowed the *Broke* to escape the destruction which was awaited as a certainty. The reason for this was that the Germans believed the *Broke* to be sinking and the *S-53* thought it essential to return to the assistance of the *Elbing* as soon as practicable. On her return this boat sighted a third enemy destroyer which had evidently been abandoned by the crew. While the *S-53* stood on toward the *Elbing* the *G-88* sought to sink this wreck by means of bombs. At this moment the *G-88* was fired on from the rear by five destroyers which were approaching from both sides. As the *G-88* had no more torpedoes and was considerably reduced in speed she avoided an action and turned away, thereby losing contact with the *S-53* and the *Elbing*.

At the same time the *S-52*, Lieutenant Commander Ehrentraut, had made contact with enemy destroyers at the rear of the line. This boat, with the *V-28* and *S-51*, had been accompanying the fleet flagship, and at 11.50 p. m. had received orders, together with the other boats, to proceed to the assistance of the damaged battle cruiser *Lutzow*. But only the *S-52* had been able to carry out these orders. After searching in vain astern of the battleship column and to starboard for this cruiser, at 1.17 a. m. this boat sighted two groups of destroyers following a flotilla leader which were approaching on both sides on course south. The group to port opened fire, but the German boat was able to escape pursuit under the protection of a smoke screen at high speed, and reporting this contact by radio proceeded to the coast of Jutland. (According to the Jutland Dispatches, page 304, the *Castor* sighted a torpedo boat to starboard at

1.15 a. m. As soon as this was recognized as an enemy boat, the *Castor* turned toward it with the intention of ramming and opened fire. The boat was too quick with a counter maneuver and sheered out, under the fire of all guns, and was lost to view. In the belief that this boat had been sunk, the *Castor* turned again to a southerly course to rejoin the fleet.)

Those destroyers of the British Fourth Flotilla which had survived the last actions had been scattered in all directions and were out of action, so far as the further progress of the battle was concerned.

As the last destroyer of the Fourth Flotilla [the *Ardent*] went down, the rear ship of the *Marlborough* division in the British battle fleet was barely 4 miles to the southward of the head of the German battleship column, since the speed of the leading ship of that division had been so reduced as a result of the torpedo hits that the division had gradually dropped 6 miles astern of the other battleship columns. [Fig. 51-D. As already related, the contact of this division with the *Moltke*, note A of fig. 51, occurred earlier in the evening.] Even the other British battleships had been able to observe to the NW. and astern the searchlight beams against the low-lying clouds and the flash of gunfire, without being able to determine the true meaning of these engagements. These ships had been so close to the engagements of their own light forces that the *Vanguard*, rear ship of the Fourth Squadron, thought that an attack was being made on the Second Squadron to port, while the *Thunderer*, rear ship of the Second Squadron, could have joined in the action with gunfire. This ship had withheld her fire in order not to betray the position of the British battle fleet.

The Fifth Battle Squadron had been even closer to the enemy, and these ships, followed by the light cruiser *Birmingham*, on the starboard beam of the *Marlborough* division, were almost hit by wide shots from the German battleships. Only the *Malaya* had an opportunity of recognizing these ships, when an explosion of a torpedo gave her the chance to distinguish a ship of the *Westfalen* class apparently on the same course as the British. The *Malaya*, however, neglected to report this important fact to the commander in chief. As a result, Admiral Jellicoe was forced to conclude from observations made on the *Iron Duke* that these actions were only attempts of the German flotillas to break through his screen in an effort to attack the battle fleet, since he had received advices from the Admiralty that the German flotillas had been ordered to attack since 10 p. m. Even on the receipt of an answer, to an inquiry directed to Commodore Hawksley on the *Castor*, stating that not only destroyers but enemy light cruisers had been engaged,

he held to his previous assumption that the latter had only attacked in order to assist the destroyers to break through the screen in rear of the battle fleet. He therefore remained in ignorance of the fact that in reality these actions involved the flanking screen of the German battle fleet and that this was a prelude to the attempt of the entire enemy fleet to break through the rear of the British fleet. However, since 10.41 he had been in receipt of an extremely important communication from the Admiralty which should have brought him to make the true assumption. At 10.06 the Admiralty had intercepted and deciphered a radio from Admiral Scheer ordering airship reconnaissance in the vicinity of Horn Reef for the following morning at daylight. From this it was evident that he himself expected to be in that locality at that time. As a result of further observations of German radio traffic the Admiralty was able to warn him at 10.55 that three destroyer flotillas had been dispatched to attack his fleet. But of even greater importance was the fact that at 10.14 another intercepted radio gave the exact course and speed which the German fleet proposed to maintain during the night. Thereupon, further observations enabled them to determine the exact position of the rear ships of the German battleship column at 10 p. m., and after transmitting this to the *Iron Duke* at 11.23, the Admiralty further compiled all the previous information obtained in one message which was transmitted at 11.41 to Admiral Jellicoe. This stated that the German fleet at 10.14 had received orders to steer course SSE. $\frac{3}{4}$ E., speed 16 knots, battle cruisers at the rear of the column. Although the objective, Horn Reef, was not mentioned in this dispatch, it was very evident from the course and the 10 p. m. position. (This information evidently was based on the deciphering of a message sent by Commodore Heinrich at 10.13 to Flotillas II and VI: "10 p. m. own main body rear ship 165 y lower. Course south." This message gave the position of the *Regensburg*. The true position of the rear ship was, however, some 10 miles more to the northward at that time, and this error was repeated in the information transmitted by the British Admiralty).

But just this position reported by the Admiralty, $56^{\circ} 33' \text{ N.}$ $5^{\circ} 30' \text{ E.}$, caused Admiral Jellicoe very properly to doubt the correctness of their information. [Note G, fig. 47, shows this position.] If this position were correct, then at 10 p. m. the German fleet must have been 10 miles to the SW. of the British advance squadrons at the time the latter changed course to south. But from reports from his own forces he knew that the German fleet at that time was to the northwestward of the *Iron Duke*. But even assuming that this reported position were correct and that meanwhile Admiral Scheer

had really steered the course ordered at 10.14, it was still incomprehensible why his own forces had then not made some report of contact with the enemy. [It is interesting that an innocent error in the original German message caused all this trouble for the British, and this suggests the possibility of sending false radio messages for the enemy to decipher; precautions would, of course, have to be taken to avoid deceiving our own forces.] After the actions with the screen had begun in the rear of the fleet, Admiral Jellicoe thought it impossible that Admiral Scheer would maintain the course reported in spite of the reports from the Admiralty, since this would lead him through the midst of the destroyer flotillas. If he actually did this, then in the opinion of the British commander in chief, the German fleet would certainly suffer severe losses. Therefore he held it more than probable that these actions between the light forces (as he assumed) would cause the German fleet to turn off to the north and westward. None of the reports received indicated with any clearness that German battle cruisers had joined in any of these engagements. Finally, at 12.38, Commodore Goodenough was able to report through the *Nottingham*, whose radio was still intact, that he had been engaged with enemy cruisers to the WSW. at 11.15. When, at the same time, another report was received from the *Birmingham* stating that battle cruisers, number unknown, probably enemy, had been sighted to the NW. on course south from her position (given as $56^{\circ} 26' N.$, $5^{\circ} 42' E.$). Admiral Jellicoe saw in this only a further confirmation of his assumption that the German fleet was still to the westward, at least at the time given in the reports, and that they had not in the meantime taken a course toward Horn Reef. On account of the great reliability which had previously characterized the reports from the Second Light Cruiser Squadron, Admiral Jellicoe was inclined to place greater confidence in these last two radio messages than in the reports received from the Admiralty. Further reports were not received. Rather, after the sporadic actions in the past quarter of an hour, nothing broke the stillness of the night. This further strengthened Admiral Jellicoe in his assumption that the German fleet was still to the westward, while Admiral Beatty, steaming 15 miles ahead of the *Iron Duke* to starboard, was also certain that no attempt had been made by the enemy to break through to the eastward. He had therefore instructed the Third Light Cruiser Squadron to keep a sharp lookout to the northwestward.

It was still not too late for the British to halt the break through to the eastward, even after the destruction of the Fourth Flotilla, since the remainder of the British flotillas were still to the eastward and southeastward. But these flotillas had already become involved in

the previous engagements, since some of the German shell which passed over the Fourth Flotilla had struck amongst the neighboring Thirteenth Flotilla and some even near the Ninth and Tenth Flotillas. No better opportunity could have offered for these flotillas to make contact with the enemy battle fleet and then initiate a well-planned mass attack from both sides. Instead of this, Captain Farie, leading the Thirteenth Flotilla on the *Champion*, thought that his flotilla had already been discovered by the enemy and taken under fire, and finding himself hindered from attack by the Fourth Flotilla to starboard, he turned suddenly hard to port, followed by *Obdurate* and *Moresby*. This movement, which was made without signal, was not seen by the other boats of the flotilla, which, unaware of their error, maintained their course and finally fell in astern of the Ninth and Tenth Flotillas which were led by Commander Goldsmith on the *Lydiard*. (These destroyers were: *Nerissa*, *Termagant*, *Nicator*, *Narborough*, *Pelican*, *Petard*, and *Turbulent*.) Shortly before this the *Unity*, of the Fourth Flotilla, had also joined on astern of the *Laurel*, so that Commander Goldsmith, without being able to recognize this fact in the darkness, was now followed by 12 boats instead of the original 5 in his division. Unfortunately for the rear ships of this force, the involuntary leader was completely unaware of the situation. On sighting again a long line of ships to starboard at 12.30, the flotilla leader on the *Lydiard*, mistook these for his own battleships, and thought they were probably ships of the British Fifth Battle Squadron. He therefore turned to course SE. with the *Lydiard* at 12.40, followed by the other destroyers, to parallel the course of this assumed British battle squadron in order to increase speed to 30 knots and cut in ahead of the latter to regain station on the right flank. This maneuver would have succeeded had he reckoned on this longer line of destroyers instead of a line comprising only five boats. As it was the last four destroyers ran afoul of the head of the German column in attempting to cross over. The *Pelican* and *Narborough* had already crossed ahead when they sighted two ships to starboard which were mistaken for their own light cruisers and called by recognition signal. At that moment the *Pelican* was illuminated by a searchlight beam, which promptly lost the target again, but was able to find and hold the last two destroyers, *Petard* and *Turbulent*. In spite of this the *Petard* and *Turbulent* could not decide to turn to starboard and attack in passing. The *Petard* sighted the leading German ship at a distance of 400 to 500 meters, and being challenged could only answer by means of a battle lantern which betrayed the boat as an English destroyer. Her position was still excellent for a torpedo shot, but having fired all torpedoes the boat was forced to turn away and barely escaped being rammed by the bow of the

enemy ship. Thereupon this boat was held by the searchlights of two German ships which took it under fire. [Contact of fig. 51-E.] The first hit put the after gun and gun's crew out of action, the second penetrated the hull aft, the third broke the oil lines, causing a fire, while another shell showered the midships section with fragments and splinters. After the sixth hit the destroyer was able to escape.

On the German side the *Rheinland* had sighted a destroyer at 1.45, and thinking this boat was about to attack turned off to port. At 2.05 the *Westfalen* sighted a suspicious smoke cloud to starboard and at the same time two destroyers of a large type were sighted to port. Since the ship was apparently being attacked from both sides at the same time, there remained nothing for the commanding officer but to hold his course through the midst of these two groups. The boat ahead, *No. 606*, was barely able to clear the bow, and was then taken under fire by the starboard battery with thirteen 15-cm. shell and six 8.8 shrapnel, of which the first shot seemed to pierce the hull and stop the boat. Before this could be definitely determined the port battery opened on another destroyer with "27" marked on the bow. The latter turned to parallel course for fear of being rammed and steamed ahead of the battleship, so that the latter needed only to turn one point to starboard in order to complete the destruction of this boat with gunfire. The first salvo carried away the stern gun of the boat, together with the entire personnel serving it, while after the expenditure of nineteen 15-cm. shell and sixteen 8.8 shrapnel, the boilers of the destroyer exploded. With the sinking of this boat, the *Turbulent*, this action came to an end.

The Fourth Flotilla had been destroyed, the Eleventh driven off, and the Ninth and Tenth and a part of the Thirteenth Flotillas had broken through to the westward with some losses and without making an effective attack. The Twelfth Flotilla, led by the *Faulknor* and consisting of 15 destroyers, did not attack for the time being. As the *Champion*, *Obdurate*, and *Moresby* turned away to the eastward to avoid the gunfire this movement was followed by the *Faulknor* and the boats of that flotilla at 12.45. This flotilla was forced off on course NE. by the *Champion* and was unable to resume course south before 1.20. At this moment the German cruisers *Frankfurt* and *Pillau*, which had become separated from their own main body, stood in from starboard toward the *Menace* and *Nonsuch*, the two last boats of the flotilla. The *Menace* turned with hard-over rudder to escape being rammed, while the *Nonsuch* attempted to fire a torpedo, but owing to the heavy enemy fire was forced to steam full speed (33 knots) to the eastward to escape complete destruction, and in so doing lost further contact with her own

flotilla. In this manner the strong eastern group of destroyer flotillas was driven off from their favorable position before they had had an opportunity to attack the enemy battle fleet. The passage was clear for the German fleet. What Admiral Jellicoe had held to be impossible had become an accomplished fact.

In spite of the mass formation of destroyers astern of the British fleet, Admiral Scheer had pushed through the midst of this screen without the loss of a single ship while forcing this passage. All conditions for favorable night attack of destroyers existed, such as position, light, and weather. The ease with which the attacks were driven off, the small number of destroyers which actually came within the range of vision of the fleet, scarcely permitted Admiral Scheer to realize the extent of the danger which threatened the head of the German battleship column. Although the German coast stations had carefully observed and intercepted the British radio traffic during the battle, the decoding and deciphering of the messages took considerably longer than it did the British Admiralty. Thus the fact that the British commander in chief had employed his entire strength of destroyers as a screen in rear of the fleet, and that the head of his column had repeatedly run into this hornet's nest, as well as other extremely important facts, the knowledge of which would have been essential, were only learned by Admiral Scheer after his return to port. The slight results obtained and the relatively large losses of the British destroyer flotillas was all the more surprising in view of the existing situation. There was no lack of personal bravery on the part of the British flotilla leaders, and this was fully acknowledged by the Germans. As Captain Redlich, commanding the *Westfalen* and a specialist on this subject, wrote in his report: "All attacks of the British destroyers showed very little training in the methods of making the approach to attack, inability to estimate the situation and the counter maneuvers of the vessel attacked. All attacks were executed individually and after approach, and even though it is not in accordance with British tactics to fire during the approach, the destroyers came too close to the German ships before turning and were thus picked up and fired on before they were able to get into action." Commodore Michelsen, first leader of destroyers, who had observed the attacks from his flagship *Rostock*, stated that all attacks were made with noteworthy boldness, but with an audacity which indicated a lack of knowledge of the proper attack methods. To this fact he attributed the large losses sustained by the flotillas. No attack was observed from a position ahead of the ships attacked.

The angle of approach was too sharp in general; the night torpedo range of the British torpedoes was evidently very short, certainly not over 1,500 meters. A number of torpedoes had been

sighted close aboard the *Rostock* which had reached the limit of travel. In the opinion of the commanding officers and the chief of Flotilla VI, the use of a light fuel oil for boiler firing on these destroyers had proven fatal in some cases, since it was frequently observed after the first hits that fires broke out which could not be easily extinguished. On the English side the cause of the failure was attributed to the grouping of too large a number of destroyers together in one flotilla. No attempt was made to maintain contact in order that the individual destroyers might make a mass attack from both sides at the same time. But even in the incomplete manner in which these attacks were carried out, they would still have been very effective against a fleet which was not so carefully trained as the German in night attacks. Again, the German gunnery, expert tactics, presence of mind, and seamanship of the German leaders and commanding officers had triumphed in the difficult situation during the night engagements. The searchlight discipline, the firing of star shell, and the fire control of the German leading ships was a result of the long training in peace time undergone by Squadron I and had reached noteworthy heights. In particular the direction of the fire control by the gunnery officers of the *Westfalen*, Commander Rinsch, Lieutenant Commanders Paul Wolff and Fraudenberg, was very praiseworthy. It was due to these excellent attributes of the fleet that the break through to the eastward made by Admiral Scheer was accomplished with such slight loss. In the course of the night engagements the British lost four destroyers sunk, and three out of action, while the only damage inflicted by these flotillas was a certain amount of injury to the *Rostock*, which resulted in the loss of that vessel later on in the night. The capital ships remained intact. [The loss of the *Elbing* also should be counted.]

While the British destroyer flotillas without effort on their own part had been given a brilliant position for attack on the German battle fleet, the German flotillas, after the severe battles during the daylight engagement, had been forced to first find the British fleet. Since the conclusion of the day action had found these flotillas lost from all contact with the enemy, there was no point of departure which would serve as a fix to assist this search. There remained, therefore, no other course than to launch these attacks in the various sectors from ENE. to SW. in individual groups without the assistance of cruisers as flotilla leaders, and this in turn led to a wide dispersion of the destroyer forces. It was unfortunate that the strongest and fastest boats which comprised Flotilla II, and which had suffered least in the day engagements, with practically full allotment of torpedoes, should have been assigned the most unfavorable sector, ENE. to ESE., from the 9 p. m. position of the German fleet. Thus. this

flotilla advanced into empty space and soon after 1 a. m. returned to port around the Skagen. [This appears to have been a grave error, which might have cost the Germans dearly had the fleet action been renewed the next morning.] In the adjoining sector, ESE. to SE., there remained at 9.52 only the *V-69* and *V-46*, of the Twelfth Half Flotilla, after the *S-50* had dropped out. Although these boats had observed several night actions from a great distance at about 11.42, they did not encounter any enemy forces. The boats of the Eleventh Half Flotilla, which had only one remaining torpedo each, had joined forces with the *Rostock* immediately after the opening of the night action and following the flotilla leader had passed through between the units of the Battle Squadron III. On the other hand, Commodore Michelsen still retained in reserve the boats of the Flotilla IX which were still ready for action. This flotilla comprised the *V-30*, *S-34*, *S-33*, *S-36*, *V-26*, and *G-42* of Flotilla III. On the report of the enemy forces near the van at 10.37 these boats had been assigned a search sector from SSW. to SW., while between these and the Twelfth Half Flotilla, Flotillas V and VII, which were up to strength, were assigned the sectors from SSW. to S. by E., and from S. by E. to SE., respectively. Thus it occurred that in those sectors which were most favorable for sighting the enemy main body there were found the slowest destroyers of the coal-burning type. Of these forces Flotilla VII, under Commander Koch, had encountered the British Fourth Destroyer Flotilla at 11 p. m. and after passing around them had resumed its advance on course SSE. $\frac{1}{2}$ E. At 12.55 the Fourteenth Half Flotilla had been detached to act singly and proceeded on course SE. by E., at 16 knots in order to increase the area covered by the search. When a third group of three boats was about to be detached from the flotilla at 1 a. m. for the same purpose to search on course S. by E. $\frac{1}{2}$ E., a number of their own ships were sighted on the starboard bow engaged with enemy destroyers, and the flotilla leader decided to keep his forces concentrated rather than send his boats in between the lines of the forces engaged. Thereupon further heavy gunfire was heard to starboard, followed at times by severe explosions, but the enemy main body was not sighted.

In the light of subsequent events it would appear that Flotilla V under Commander Heinecke, which had started the search for the fleet at midnight, disposed in four groups on the general course S. $\frac{1}{2}$ W., would have had the most favorable opportunity for accomplishing their mission. (This group comprised *G-11* flotilla leader; Ninth Half Flotilla: *V-1*, *V-4*, *V-6*, *V-2*, *V-3*; Tenth Half Flotilla: *G-8*, *G-7*, *V-5*, *G-9*, and *G-10*.) As with Flotilla VII, this group was able to steam nearly smokeless at only about

18 knots on account of the slacking of the fires, and thus the advance of the flotilla was extremely slow. Further, this flotilla, as well as the others, had received orders from Commodore Michelsen to rejoin the German fleet by 3 a. m. Errors in navigation and in the transmission of signals added to the difficulty. Thus, the search had scarcely been under way for half an hour when the *V-2*, *V-4*, *V-6*, *G-9*, and *G-10* left station on the western flank and swung on course SE., while the remaining groups at least held their course until 1.30 a. m. Therefore these boats had attained so little distance from their own fleet that they were in grave danger of becoming involved in the actions between the German fleet and the British Fourth Flotilla. At 12.35 one of the torpedoes probably fired during this action passed under the *G-11*. At 1.04 the *G-9* and *G-10* sighted a light cruiser three points on the port bow, which had four stacks and might have been the *Rostock* or an enemy cruiser, but before the doubt could be cleared up the vessel disappeared to the southward. Finally, this destroyer group was fired on by their own ships at 1.20 a. m., and 20 minutes later were able to close other boats of Flotilla IX. The latter group under the leadership of Commander Tillessen had been searching on bearing SW. by S. since 10.37, but not having sighted enemy ships had stood on course toward Horn Reef since 1 a. m. As a result of this chain of circumstances which were favorable for the British, their battle fleet was spared the test of a night torpedo attack which the Germans were forced to meet. Neither the German battle squadrons nor the flotillas were able to make contact with the British battle fleet during the night. That the German battle fleet need not have feared such a night engagement and that, with the British fleet in the night formation which they assumed, such an action would have been welcomed by the German commander is fully confirmed by Admiral Jellicoe's own acknowledgment of the German superiority in a night action.

CHAPTER 14

SKAGERRAK—LAST PHASE—JUNE 1, 1916

After the destruction of the *Black Prince* and the *Ardent* there was quiet in the German lines. Summer nights in these high latitudes are short. The dawn was not far off and after the night engagements just experienced, all was expectancy regarding the events the coming day would bring. As the dawn broke toward 3 a. m. the eastern horizon was clouded with the smoke of the advancing fleet drifting in that direction. At this time a light drizzling rain set in which restricted the visibility, while a strengthening SW. wind caused an increased seaway to delay the damaged and sinking ships on both sides. While the *Ardent* and *Fortune* had already sunk, the *Sparrowhawk* and *Tipperary* as well as the *Wiesbaden* farther northward were drifting helpless in the seaway, the *Lutzow*, *Elbing*, and *Rostock* as well as *Porpoise* and *Spitfire* were steaming slowly away from the scene of the night engagements. The other destroyers which had participated in the night attack had been scattered to the four winds and were seeking in vain to regain contact with their fleets.

Meanwhile the commanding officers of the battleships with the exception of the first division, had not been able to obtain an insight into the events which had transpired at the head of the column. In most cases they were unable to make out whether this had been an engagement of ship against ship or simply a number of destroyer attacks. Although several burning wrecks had drifted past the advancing column it was impossible to determine whether these were friend or enemy. On the other hand, thanks to the superb seamanship displayed, these ships had been able promptly to avoid every danger and to maintain station in the formation. Only the *Nassau*, after her collision with the *Spitfire*, had had to relinquish her original position in column and finally to sheer in between the *Hessen* and *Pommern*. Also the *Schlesien* and *Schleswig Holstein* after sheering out to avoid the broken down *Rostock* at 12.50 a. m. had taken position at the rear of the line astern of the *Derfflinger* and *Von der Tann*. But since 2 a. m. these ships had been steaming on the port side of the line in order to regain their proper station in the formation. Aside from this the formation of the fleet had remained undisturbed. All units were at their prescribed distance from the leading

ship, *Westfalen*, which after the last destroyer attacks, had resumed the base course SE. by S. to reach Horn Reef.

At dawn the boats of the German Flotillas IX and V rejoined the fleet after their futile attempt to locate the British main body and toward 3 a. m. the *V-2*, *V-4*, and *V-6* of the Ninth Half Flotilla were on the port beam of the *Westfalen* preparing to take station at the head of column, while the *Stuttgart* took over the screening of the flank. Further boats were expected to close the fleet to port, especially the boats of Flotilla VII. On the other hand further destroyer attacks were improbable with increasing daylight. But the British Twelfth Flotilla still stood between the German fleet and its objective—Horn Reef. This flotilla had been forced off to the northward and eastward by the *Champion* during the first attack of the British Fourth Flotilla and later by the *Frankfurt* and *Elbing*, so that the distance from its own fleet had been increased to about 30 miles when the flotilla finally returned to course south at 1.20 a. m. Still further to the eastward and northward, the *Champion* and the two destroyers of the Thirteenth Flotilla, *Obdurate* and *Moresby*, had returned to the southerly course at 1.05. All of these units were now rapidly approaching the German battle-fleet. Of these the closest unit was the *Faulknor*, leader of the Twelfth Flotilla under Captain Stirling. Astern of this vessel were the boats of the First Half Flotilla in double column. (First Division: *Obedient*, *Mindful*, *Marvel*, and *Onslaught*, to starboard; second division: *Maenad*, *Narwhal*, *Nessus*, and *Noble*, to port.) In the wake of these were the four boats of the Second Half Flotilla following the flotilla leader *Marksman*. (These were *Opal*, *Menace*, *Munster*, and *Mary Rose*.) Without counting the flotilla leaders, Captain Stirling therefore had under his command 12 of the latest and strongest destroyers, each equipped with four torpedoes and capable of 34 knots speed. (Of the other destroyers of the flotilla, the *Nonsuch* had lost contact, while the *Mischief* remained with the armored cruisers.)

At 2.45 a. m., as the first streaks of dawn lighted up the darkened horizon, Captain Stirling sighted to starboard a long line of battleships which he was able on closer approach to recognize as German ships. Thereupon, he turned to a parallel course at 25 knots and ordered the first division to attack. But scarcely had the approach for attack begun when the German ships, apparently noticing the movement, turned away and were lost to sight. The British flotilla commander believed, however, that these ships would soon thereafter return to their original course. He therefore ordered the first division to sheer into formation and steaming at full speed he proceeded on the assumed course of the enemy in order to attain a position ahead of the column. Meanwhile he found opportunity at

2.56 to send the following very important report by radio: "Enemy Battlefleet steering SE., bearing SW. My position 10 miles astern First Battle Squadron." On account of the great importance of this message it was repeated twice, but neither the fleet flagship nor any other receiving station acknowledged it. At about 3 a. m., the *Faulknor* turned 16 points to starboard in order to attack from a position ahead on the reverse course. This movement was followed only by the *Obedient*, *Marvel*, and *Onslaught*, while the *Mindful* remained behind on account of a casualty to one boiler [fig. 51-F]. The second division remained on the previous course because the *Maenad* leading the division thought that the torpedoes were to be fired on approach and had trained her tubes to starboard. Five minutes later, this division with the *Narwhal* was able to approach for attack with the first division.

Meanwhile the *Faulknor* with the three following destroyers had again sighted the enemy ships to port immediately after the turn, and was now able to distinguish clearly that these comprised five or six ships of the *Kaiser* and *Deutschland* class. The conditions for attack were excellent in so far as pertained to illumination and position of the flotilla. On the one hand, it was too light for the battleships to use their searchlights effectively while, on the other hand, it was sufficiently misty and dark for the destroyers to launch a surprise attack. In addition to this the German destroyers were just on the point of rejoining the fleet from both starboard and port flanks—a fact which the English did not know at the time. The attention of the fleet was focused particularly on the returning boats of Flotillas IX and V, with which recognition signals had just been exchanged. Although the *König* at the rear of Squadron III had sighted enemy destroyers to port at 2.47 and had taken them under fire, they remained in sight for only a minute and, turning off at full speed, were lost to view in the mists. When later the *Markgraf*, nearer the head of the line, sighted other destroyers on the port quarter near 3 a. m., this ship hesitated to open fire before the recognition signal had been answered, as there was still some doubt as to whether these were friend or enemy. The *Kronprinz* (Captain Feldt), next ship in column, was also unable to recognize these as enemy destroyers, when the *Grosser Kurfürst* (Captain Goette) counted six destroyers (four stacks) at 3.02 about one point forward of the port beam distant 1,400 to 1,600 meters, which were steaming to attack in column in close formation. The *Grosser Kurfürst* turned six points to starboard and opened fire on the second, third, and fifth destroyers. The *König* and *Deutschland* (Captain Meurer) could not distinguish these vessels on account of the smoke of the ships ahead, but turned to starboard and opened

fire, too late, however, to halt the attack. The *Faulknor* had already fired one torpedo at the second and one at the third ship in line. At 3.05 the *Obedient* also fired a torpedo at a ship of the *Kaiser* class, while straddling salvos struck near the destroyers. Between 3.05 and 3.08 the *Marvel* and *Onslaught* each fired four torpedoes, some of which were still set for short-range shots. At the same time the *Mindful*, which was still approaching for attack, sighted the enemy and turned to fire, but was forced to sheer off to clear the destroyers which were returning from attack and could not therefore get off her torpedo shot. The latter force observed at 3.10 that one torpedo detonated in the wake of the second smokestack of one of the enemy battleships and a distinct explosion was heard. At this moment the *Obedient* fired another torpedo at one of the older battleships. Thereupon, all destroyers turned away under cover of a heavy smoke screen.

Meanwhile the torpedoes had reached the German line. One of them passed close to the bow of the *Grosser Kurfürst*, while a second detonated about 100 meters astern in the wake of the *Kronprinz*. Two torpedo tracks were observed in the director telescope of the *Markgraf*. The ship turned off, one torpedo passing about 30 meters ahead and another under the ship without detonating. At 3.07 the *Hessen* (Captain Bartels) was forced to turn out to avoid a torpedo while opening fire on the destroyers. At 3.10 the *Pommern* (Captain Bolken) was hit by one or two torpedoes. Shortly thereafter, there followed a series of explosions in quick succession, each one accompanied by clouds of smoke. Evidently the hits had occasioned the explosion of a part of the ship's ammunition. Then the flames spread rapidly over the entire ship reaching as high as the mast-heads. The *Pommern* broke in two while parts of the wreckage were thrown high in the air, and as the *Hannover* passed to starboard of the floating stern of that ship, this part capsized, the rudder and propellers being visible high in the air for a moment before sinking.

While the *Hannover* was still turning out, a torpedo approached from port and passed close under the stern. The *Hannover* turned further with all speed to starboard, and a few minutes later felt a heavy shock as though a submarine had been rammed under water. The ships astern of the *Pommern* were still under the impression that the former vessel had been blown up by a mine or submarine, when the *Nassau*, then the *Schlesien* and *Schleswig Holstein* made out the faint outlines of three or four destroyers through the smoke and mists to port. These were taken under fire but soon disappeared. Promptly realizing the danger these ships all turned eight points to starboard, but one torpedo passed the *Nassau* close to the bow, while another passed clear astern; these were the third and fourth torpedoes

which had endangered the ship during this night. The *Schlesien* (Captain Behncke) was forced to sheer out to avoid torpedoes, while the *Schleswig Holstein* (Captain Varrentrapp) maintained course and at 3.12 opened fire on the enemy destroyers at 1,500 meters. The latter turned away. But the second salvo fired at 1,000 meters apparently made three hits on the last destroyer which commenced to burn. Thereupon all boats disappeared in the smoke from the battleships which were drifting toward them.

As a matter of fact one shell had struck the *Onslaught* at this time, wrecking the bridge and chart house, killing among others the executive officer, mortally wounding the commanding officer, setting fire to all ammunition and destroying all the navigational equipment of the ship. Thereupon this vessel closed the *Mindful* and at 3.20 the division turned to port on to course south in order to regain contact, but lost it again as they were forced to turn off, thinking they were being pursued by enemy cruisers.

About 10 minutes after the *Faulknor*, the *Maenad* and the *Narwhal* also approached for attack and at 3.20 each fired 2 torpedoes at about 2,700 meters, whereupon, the *Maenad*, not satisfied with this success, although a hit was believed to have been observed, turned again and swinging the tubes to starboard fired her 2 last torpedoes at 3,700 meters. But these also missed, although the destroyer thought that a heavy explosion had occurred near the fourth ship of the German line.

It is difficult to say where the other destroyers of the flotilla remained during the attack of the first division. In any event none of them fired their torpedoes. Evidently, they had turned away under the heavy torpedo-defense fire and believing themselves followed by enemy ships had lost contact with the *Marksman*, leader of the third division, and the destroyers following her.

Meanwhile the sound of gunfire had drawn on the *Champion*, which with the destroyers *Obdurate* and *Morseby*, was some three miles further to the eastward. These vessels had, therefore, turned to course west at 3.14, encountered the *Marksman* and *Maenad*, and turned with them to course south at 3.25. At this time a few large ships were distinctly sighted to the southward whereupon the *Marksman* inquired of the *Champion* if they were German or British ships. The answer was, "German, I believe." The *Champion* held course toward these ships for some minutes and then at 3.34 turned suddenly to the eastward without any apparent reason. The last destroyer *Morseby*, under Lieutenant Commander Alison, was the only one which did not follow this change of course. At 3.35 he sighted four ships on course SE., distant 3,700 meters which he recognized as older type battleships. Making signal that the enemy was to the westward, he turned with hard left rudder to make the

approach for attack, and at 3.37 fired a torpedo set to run at high speed. Soon after this the *Schleswig Holstein* sighted a few scattered destroyers to port which turned away before they could be taken under fire. At 3.42 the *Von der Tann* turned out to avoid a torpedo, while the *Moresby* certain that a hit had been made, turned off to rejoin the *Champion*.

Meanwhile an incident occurred near the head of the German column which can not be fully explained. The occasion of the action near the rear of the line was not clear to the leading ships in column as no enemy vessels could be sighted from that position. These ships had, therefore, maintained their previous course, while the *V-2*, *V-4*, and *V-6* of Flotilla V, under Lieutenant Commander Hoefer, were steaming up towards the head of column. They were about 200 meters abeam of the *Westfalen* and *Rheinland*, when at 3.15, or five minutes after the explosion on the *Pommern*, a sudden explosion occurred on the *V-4* (Lieutenant Commander Barop). The whole fore part of the boat was torn off and emerged for a few minutes astern of the rest of the vessel. Since no enemy vessel was in the vicinity at the time, it was supposed at first that the boat had struck a mine or had been hit by a submarine. The *V-2* and *V-6* went alongside the projecting stern of the sinking boat and rescued the wounded and survivors; a difficult task in the heavy seaway. Seventeen men were killed and two severely wounded. Since Battle Squadron II at that time opened fire on enemy vessels to port, the wreckage which was still floating was sunk by gunfire and a torpedo fired by the *V-6*. Whether the first explosion on the *V-4* was due to a drifting mine or a torpedo which happened to be floating at that place or to one of the boat's own torpedoes has never been fully determined. It can only be stated with certainty that the loss was not due directly to the attack of the British Twelfth Flotilla. Further, the attack of this flotilla showed what might have been accomplished by the other British flotillas had they been led in such a brilliant manner as the Twelfth and had fired, not on the approach, but in passing the enemy ships.

But even this attack had certainly not fulfilled the hope which Admiral Jellicoe had expected from the night attacks of these destroyer flotillas. On the contrary, instead of splitting up the German fleet and driving them off to the westward, these flotillas had been unable to prevent the bold break through toward Horn Reef, and instead had themselves been scattered in all directions. Although Captain Stirling, commanding the Twelfth Flotilla, had attempted at 2.56 during the progress of the attack, to report to the commander in chief by urgent radio that he had encountered enemy battleships 10 miles in rear of the first battle squadron, and soon thereafter that he was about to attack while the enemy turned

to course SSW.; these signals were picked up by the *Marksman* only and not at all by the fleet flagship, thanks to the good interference of the German radio stations, although both messages were repeated. (In reality the distance of the *Faulknor* from her own fleet at the time these signals were sent was considerably greater than reported, being about 25 miles.) But even though Admiral Jellicoe had received this message of the Twelfth Flotilla, this would not have effected the further course of events, since the last opportunity to cut off the German fleet from Horn Reef had already passed. At all events the British commander in chief was not aware that the latter had been successful in breaking through, and furthermore, since no reports had been received since 12.30 regarding the movements of the enemy fleet, he was forced to conclude they were steaming astern of the British fleet to the southward. No reports had been received from his light cruisers or destroyers, nor had the admiralty sent further information concerning intercepted German messages pertaining to the fleet movements, which might have thrown light on his erroneous assumptions. He was, therefore, still of the opinion that the German fleet would certainly be sighted shortly after daylight. At 3 a. m. he decided in the absence of further reports of the enemy within the next half hour to counter-march to course north to meet them.

At 3.15 he, therefore, dispatched a radio directing the squadrons to turn to the reverse course at 3.30 and to form battle line in column on course north. But although Admiral Jellicoe believed that the German fleet was still to the northward, Admiral Beatty held a different opinion. The latter had seen nothing of the night engagements which had occurred at the rear of the fleet. At the conclusion of the daylight action the German forces had been to the westward of the British Battle Cruiser Fleet. Consequently its commander believed that the principal danger lay in the chance that the German fleet might succeed in regaining their bases by hauling around to the southward and westward of the battle cruisers during the early morning hours. In order to prevent this he was about to request permission of the commander in chief to scout to the SW., when he received orders at 3.22 to stand on course north and close the battle fleet.

The one assumption was as erroneous as the other. The keen decision of the German commander to break through towards Horn Reef without regard for the opposing forces between the fleet and its objective did not come within the calculations of any of the British commanders. While these officers suspected the German fleet to be to the northward, westward, or southwestward of the British, the former was in reality about 16 miles to the westward of Horn Reef Lightship at 3.30 a. m. and about 30 miles NE. of

the *Iron Duke*. On the other hand, the battleship division under Admiral Burney, which was reduced in speed on account of the *Marlborough*, had fallen behind the other columns about 12 miles, and was only about 15 miles to the southeastward of the German van. The fact that this division had dropped astern was only known to the fleet at daylight when the *Marlborough* reported by radio at 2.56 that the ship could not make over 12 knots, while the other ships of the division, *Revenge*, *Hercules*, and *Agincourt* had continued at 17 knots. At 3.39 the British main body which was to the southward turned to course north in compliance with the orders received in the meantime. This force, led by the *King George V*, consisted of the Second and Fourth Battle Squadrons and the Fifth Division. At 3.44 the Fifth Battle Squadron, which was some miles to the northward of the head of the battleship column, also turned to the northward, as did the battle cruiser fleet, which was 15 miles WSW. of the battle fleet; at 3.55 the three remaining ships of the Sixth Division also turned to the reverse course.

Meanwhile the light cruiser *Fearless*, which had lost contact with the First Destroyer Flotilla during the day action on account of reduced speed, came in sight in the dawn astern of the *Marlborough* and taking Admiral Burney and his staff aboard transferred the latter to the *Revenge*. Thus at 4.35 that officer hoisted his flag on board the *Revenge* and again took over the command of his division. Soon thereafter the *Faulknor*, flotilla leader of the Twelfth Flotilla, accompanied by the destroyers *Obedient* and *Marvel* joined these ships. Thereupon Admiral Burney, under instructions from the commander in chief, sent the *Fearless* back to the *Marlborough* to escort the latter vessel to Rosyth or the Tyne, while he rejoined the fleet with the rest of the sixth division. But much more serious was the fact that aside from the Fourth Light Cruiser Squadron, none of the light cruisers or destroyers had as yet been able to rejoin the fleet. At daylight, therefore, Admiral Jellicoe was disagreeably surprised to find himself not only deprived of a whole battleship division but of the destroyer and cruiser screen as well; and this, in a zone which he believed to be fully controlled by German submarines. Even though during the night he might have considered continuing the advance toward Horn Reef in case the enemy were not sighted by daylight, he did not now hold to this decision, but decided to hold course to the northward until these missing forces, particularly the destroyer flotillas, were able to close the fleet. That this decision meant renouncing all hope of bringing the enemy fleet to battle again was not apparent to the British commander at the time; rather, he still hoped to stand between the enemy and their base. He expected

to make contact again with the enemy at any moment. In spite of the danger from submarines and the lack of vessels to form an antisubmarine screen, he placed the fleet in single column in order to be prepared for an attack of the German fleet if suddenly sighted under the prevalent 3 to 4 mile visibility. This did not occur, but neither did the British Battle Cruiser Fleet, the light cruisers, or destroyer flotillas or the ships of the sixth division come in sight. (The errors in dead reckoning positions which were constantly increasing make it particularly difficult to collect the forces. Thus the *Hercules* determined by a sight of the sun that the difference between the true position and the dead reckoning position was almost 30 miles. Von Schoultz: With the Grand Fleet in the World War, p. 191.)

For a while the hope was entertained that Commodore Tyrwhitt might join the fleet with the Harwich Force and thus make up for the sudden lack of destroyers and light cruisers. The latter was still at anchor at Harwich, however, much against his will, since the Admiralty was still uncertain whether or not the entire German High Seas Fleet had participated in the action and wished to maintain certain reserve forces in the event of other detachments of German forces advancing into the channel during the battle. But even had the Admiralty been less cautious and had dispatched this force to the scene of action on receipt of the message that a battle was pending, it would have had no further effect on the outcome. Admiral Tyrwhitt's cruisers and destroyers would have been unable to join the fleet before 6 a. m., without steaming at such high speed as to consume all the fuel on board these ships.

Meanwhile minute after minute passed since the countermarch of the fleet to the northward had been initiated without the British commander receiving any reports concerning the position or movements of the German fleet to relieve the paralyzing uncertainty which was oppressing him. With the decreasing visibility, the chances of still encountering the German fleet diminished until finally there appeared to be no other course to pursue than possibly to capture one or more of the disabled enemy vessels. A clue for this search was given by a message sent at 2.48, which was intercepted by the Admiralty at about 4 a. m. in which a disabled German ship, probably *Lutzow*, was reported at 11 p. m. in 56-26 N. 5°-41 E., on course south, speed 7 knots. Admiral Jellicoe, therefore, ordered a sharp lookout kept for this vessel. In this, however, he was simply chasing a phantom, since the *Lutzow* had meanwhile been sunk by her own crew while about 60 miles NW. of Horn Reef [fig. 51].

Although up to midnight the hope of bringing this damaged cruiser into port had persisted, the large volume of water which

had entered the ship was exerting such a pressure on the bulkheads that the latter could not be expected to hold. At 1 a. m. the pumps on the drains were unable to keep the water from the electric plant forward, and the crew were forced to rely on the auxiliary lighting system to continue work. Soon the forward turret was awash and the water began to penetrate the forward fire rooms. An attempt to steer the ship astern in order to relieve the pressure on the bulkheads had to be abandoned as the propellers were out of water and the bow was drawing 17 meters. Finally, calculations showed that there were about 8,000 tons of water in the hull of the ship, and Captain Harder, commanding officer, decided with a heavy heart to abandon ship and at least rescue the crew, since the ship was in danger of capsizing any minute. At 2.20, the engine room received order to haul fires, the crew assembled on the quarter-deck, while the *G-37*, *G-38*, *G-40*, and *V-45*, which had escorted the ship since the conclusion of the day engagement, went alongside. Thereupon the crew, after giving three "hurrahs" for His Majesty the Kaiser and the *Lutzow*, left the sinking ship in perfect order and quiet, wounded first. At 2.45 the ship was down in the water up to the bridge, and after two torpedoes fired by the *G-38* under orders from the commanding officer of the *Lutzow*, the battle cruiser disappeared under the waves. Thereupon the destroyers overcrowded with men started the return journey towards Horn Reef. If anything could compensate the commanding officer for the loss of his ship it was, as he stated in his report, "the splendid example of military discipline displayed by those under his command, which would leave in his heart the inextinguishable pride of having been permitted to command them."

Strange to say the *Wiesbaden*, which was drifting as a complete wreck near the scene of the day's engagement, had still held together. But at about the same time that the *Lutzow* went down this vessel turned slowly on its side, and sank. Only one man, Fireman First Class Zenne, survived the loss of this unfortunate vessel.

On the other hand the crews of the *Elbing* and *Rostock* were still fighting desperately to maintain the buoyancy of their ships, and if possible to bring them safely to port. Hit by the *Posen's* bow the *Elbing*, Captain Madlung, lay since 12.30 about 30 miles to the southward of the place where the *Lutzow* later sunk. The engine rooms were completely flooded, and there was no further possibility of getting the turbines in operating condition. When the *S-53* came alongside shortly after 2 a. m. the commanding officer permitted all hands to abandon ship with the exception of the executive officer, the torpedo officer, a squad to blow up the ship, and one cutter crew. At 2.25 the *S-53* stood clear with 477 men

aboard, including 9 prisoners from a British destroyer, and steered for the Danish coast at full speed. Meanwhile Captain Madlung with those remaining aboard rigged a small sail with great difficulty, and attempted to take advantage of the prevalent favorable breeze to bring the ship toward the coast to the eastward, where he hoped to receive help from the home bases. Toward 3 a. m. he sighted a number of enemy destroyers to the southward, and gave orders to blow up the cruiser. In the immediate vicinity, however, was the British destroyer *Tipperary*, which was on the point of sinking herself, and which witnessed the sinking of the German cruiser. But other British ships must have been near by; for scarcely had Captain Madlung left the ship in the cutter with the remainder of the crew when a cruiser or destroyer approaching from the other side fired a number of salvos at the German ship. Thereupon the cutter fished out of the water the completely exhausted medical officer of the *Tipperary*. One hundred meters further on the cutter came upon about 100 English seamen, some of whom were on a raft, while others were drifting in the water, and calling for assistance. These were the survivors of the *Tipperary*, which sank at 2.45 a. m. At great danger to himself and his crew Captain Madlung had blue lights burned to call attention of the passing British ship to these men in the water. Five hours later the crew of the German cutter was picked up by the Dutch fishing steamer *Kjmuiden 125*, and taken to Holland.

The *Rostock*, Captain Feldmann, with Commodore Michelsen aboard, was able to keep afloat longer than either the *Elbing* or the *Lutzow*. After receiving a torpedo hit at 12.30 the commanding officer attempted to steer for the German Bight, about 50 miles to the westward of Horn Reef on course south, but on account of the salting of the boiler feed water, was forced to stop his turbines. After a time it was possible to start them again, and in tow of the *S-54*, which had remained behind as escort, to make as much as 10 knots. At 3.25 the *V-71* and *V-73*, which had been dispatched by Commodore Heinrich to assist this vessel, arrived on the scene and formed an antisubmarine screen for the protection of the disabled cruiser.

Meanwhile another destroyer, *S-32* (Lieutenant Commander Froehlich), which had participated in the same engagement as the *Rostock* and received two hits, had sought protection near the coast on course east, although frequently obliged to stop enroute. At 1.45 this boat sighted an enemy cruiser of the *Aurora* type, and again at 2.55 encountered several English destroyers, but contrary to expectation was able to avoid both of these enemy forces and at 4 a. m. had reached a position about 40 miles to the westward of Lyngvig.

The *G-40*, *G-38*, *G-37*, and *V-45*, however, which were carrying the crew of the *Lutzow* in addition to their regular complement, were twice more engaged in battle. At 3.20, while about 35 miles to the northwestward of Horn Reef Lightship, they sighted two English destroyers in the early dawn bearing SSW. and steaming at high speed on a westerly course. These were probably the same craft sighted by the *S-32*, and were in fact the destroyers *Garland* and *Contest*, which were searching for the other boats of the British Fourth Flotilla. Although the German boats were considerably handicapped in the use of their armament by the extra personnel on board, the leader of the group, Lieut. Commander Richard Beitzen, decided to engage these enemy destroyers by a surprise attack with shallow torpedo shots. (*G-40* carried 260 men, including 30 wounded; *G-38*, the commanding officer, 15 officers, and 50 men, including 12 severely wounded; the *G-37*, 500 men, and the *V-45*, 215 men from the *Lutzow*.) The destroyers passed so quickly, however, that only the *V-45* was able at 3.30 to fire a torpedo at 3,000 meters, while in passing a lively artillery duel ensued at from 1,200 to 4,000 meters before the enemy destroyers were lost to view.

It was now so light that at 4.20 the German boats, while 15 miles NW. of Horn Reef, were able to sight further enemy craft about 4 points on the starboard bow. These were made out as one cruiser followed by four destroyers on the opposite course. The cruiser was the *Champion*, leader of the Thirteenth Flotilla, followed by the *Obdurate*, *Maenad*, *Marksman*, and *Moresby*, which had turned to the northward to follow the movements of their own fleet shortly after the attack made by the *Moresby*. On the other side of these vessels Lieutenant Commander Von Trotha believed he saw seven or eight larger men of war for a short time. The situation had now become critical for the German boats. Toward the south and south-eastward the passage was barred by enemy forces. If the boats turned off to the NE. or NW. they would soon fall a victim to the superior speed and numerical superiority of the enemy. For Lieutenant Commander Beitzen there was therefore only one decision: To attack the enemy, which was now only 4,000 meters distant, without regard for the consequences and fight his passage through toward Horn Reef. This was successful. The boats turned toward the enemy detachment under a heavy gunfire and at 4.30 the *G-40* and *V-45* each fired two torpedoes at 2,500 and 2,200 meters, following which a fire was observed to break out on the cruiser, while a severe explosion occurred near one of the destroyers. The enemy vessels turned off and did not take up the pursuit of the German boats. Although the *G-40* had received a hit near the after turbine, it was able to continue at 26 knots for about 10 minutes in spite of

the danger from the escaping steam, when it was forced to stop and be taken in tow by the other destroyers. A leak from a hole 1.5 meters in diameter was stopped after listing the ship to port. As a result of the heavy seas the tow line broke seven times before the vessel was finally able to reach port.

The *Rostock*, in tow of the *S-54*, was in a fair way to reach port, when at 4.55 two enemy cruisers were sighted to the SW., distant about 8,000 meters. Although these vessels both turned away the German cruisers soon thereafter received a radio message from the airship *L-11* stating that an enemy squadron was advancing toward the square in which the *Rostock* was located. Thus the fate of the cruiser was sealed. In order to prevent the crew from being taken prisoner or sacrificed in a hopeless engagement, Commodore Michelsen called the destroyers alongside. They were successful in deceiving the enemy with the English recognition signal and a smoke screen until the crew had been transferred to the destroyers and all necessary preparations had been made for blowing up the ship. The *V-71* and *V-73* then fired torpedoes into the ship to expedite the sinking, and at 5.25 the destroyers were able to withdraw toward the German coast before the enemy ships had fired a shot.

The enemy ships which were sighted were apparently the van of the British fleet. Shortly before this hope had again been revived in the British fleet that German ships might still be encountered, when toward 4.40 a. m. the sound of heavy gunfire was heard from the SSW. which was increasing in intensity. At first it was believed that this could have but one meaning, namely, that Admiral Beatty, who was known to be in that vicinity with the battle cruisers, had again encountered enemy ships. At 4.42 Admiral Jellicoe therefore turned the fleet in column of divisions sharply toward the sound of gunfire in readiness to resume the action with the fleet should opportunity offer. A further disillusion was in store for him, however, as the gunfire proved shortly to have been caused by the appearance of an airship which the *Indomitable* and the vessels of the Third Light Cruiser Squadron had taken under fire and driven off. At the same time the airship came in sight from the fleet and was taken under fire for about three minutes by the entire fleet, whereupon it disappeared in the clouds without apparently having sustained any damage.

It now stood to reason that Admiral Scheer would be fully informed by the airship as to the course and position of the British fleet while the latter remained still in ignorance as to the whereabouts of the German fleet. Although Captain Stirling had now rejoined Admiral Burney's division with some of the destroyers of the Twelfth Flotilla and had reported that at 3 a. m. he had made a successful attack on a part of the German fleet consisting of six ships

of the *Kaiser* class and three cruisers and that these had last been seen on course SW., Admiral Jellicoe was not yet in receipt of this information. Toward 5.15, however, he received a message from the Admiralty which completely cleared up the situation. This message had been dispatched at 4.29 and received on board the *Iron Duke* at 4.55. It contained the completely unexpected and astounding information that the German High Seas Fleet was 17 miles distant from Horn Reef at 3.30 a. m. and was on course SE. by S., speed 16 knots. With the receipt of this message the last hope of Admiral Jellicoe of establishing contact with the enemy vanished. But Admiral Beatty, in ignorance of this last message, still retained the previous assumption that the enemy might be found to the west or southwest. He believed, therefore, that the course of the British fleet to the northward could lead to nothing. (Admiral Beatty had further received a report from the cruiser *Birmingham* at 12.30 in which it was stated that enemy battle cruisers had been sighted. Due to an error in the receipt of this message the course was taken to be WSW. instead of south as reported, and this error had naturally strengthened Admiral Beatty in his assumption that the British battle cruisers were between the enemy and their base.)

At 4.05 he, therefore, requested authority by radio, which was frequently interrupted by German interference, to continue to scout toward the southwest. (The *Lion* received the message from the Admiralty relayed through the *New Zealand* at 4.54.) The situation being cleared for Admiral Jellicoe by this last radio from the Admiralty, he could not agree to the proposal made by Admiral Beatty. But even though Admiral Beatty must have received the message from the Admiralty, it was difficult for him to place complete confidence in this report and to agree with the conclusion that the German fleet had been successful in breaking through to Horn Reef. In any event, he disposed his light forces on a scouting line to the westward during his advance to the northward in order that he might keep a sharp lookout on this bearing. At 5.30 he was so little convinced of the change in the situation that he sent the following message to enliven the personnel under his command: "Yesterday losses were severe on both sides. We hope to cut off the entire German fleet and defeat them. Every man must do his utmost. The *Lutzow* is sinking and another German battle cruiser is assumed also to have been sunk." (Jutland Dispatches, p. 488.)

This hope expressed with such confidence could not, however, be shared by Admiral Jellicoe. Better than the commander of the battle cruiser fleet he realized the bitter truth that the opportunity to

bring the great numerical superiority of the British fleet to bear, once lost, was not easily to be regained. For the second time Admiral Scheer had accomplished what the enemy had deemed impossible and had shattered all their well-laid plans. The German fleet had broken through to Horn Reef and the enemy could not risk pursuit in that area.

Although Admiral Jellicoe had received a dispatch from the Admiralty at 4.20 stating that the decision had been reached to permit Commodore Tyrwhitt to reinforce the fleet with 5 cruisers and 13 destroyers, even had this force been able to close the Grand Fleet an hour before the time when they actually left port on this mission, their influence would not have materially altered the course of events. The commander in chief then considered the battle formation of the fleet in column to be useless, and in view of the danger of submarines he formed the fleet in line of squadrons at 5.30. Thereupon the battle cruiser fleet was sighted from the left flank division and at 5.40 Admiral Beatty received the following signal from the *Iron Duke*:

"The enemy fleet has returned to port, search for the *Lutzw*."

Taken literally, this message considerably anticipated the true state of affairs, as the German fleet was 15 miles to the westward of Horn Reef at 4 a. m., about to form in battle formation, while Admiral Scheer was attempting to make an estimate of the situation based on the incoming reports. At 10 p. m. on the previous evening he had sent a message to the commander airship detachment stating that air reconnaissance was urgently desired in the early morning near Horn Reef. This dispatch had, however, not been received by the station intended, probably owing to the strong enemy interference. However, Commander Strasser had on his own initiative and in accordance with the developments of the situation issued instructions for the five airships to cruise at dawn through the North Sea and toward Skagerrak in the same manner as prescribed for May 31. The weather conditions being more favorable than on the previous day, the *L-11*, *L-13*, *L-17*, *L-22*, and *L-24* were able to ascend toward midnight followed at 2.30 a. m. by the *L-13*. Since, however, the visibility conditions were extremely poor, these airships were unable to render the surface craft their full effectiveness as a scouting force. Although the *L-24* and *L-22* advancing to the northward sighted searchlights and heard gunfire and explosions between 1 and 2 a. m. about 35 miles NW. of Horn Reef, they were unable to obtain a comprehensive view of the tactical situation.

Then at 3 a. m. the *L-22* was forced to abandon further operations since a fresh SW. wind carried the ship so far to the eastward that the ship was 70 miles WNW. of Lyngvig. Meanwhile the *L-24* cruised on the line between Ryvingen and Hanstholm to cover the

rear of the fleet. In proceeding to this station this airship was fired on by several surface craft at 2.30 while 50 miles to the westward of Bovbjerg, and later at 3.05 came under fire from a detachment of light forces. Steering a zigzag course and at times seeking protection in the clouds to avoid the heavy defense fire, this airship laid several salvos of 50 kg. bombs of 3 to 5 each in the vicinity of a group of vessels which were in close formation and which were estimated to comprise one destroyer flotilla and six submarines. These craft could hardly be made out and were only located by the flash of gunfire. Evidently it was the intention of the enemy to force the airship off toward the Danish coast, since fire was renewed each time the ship left the protection of the cloud banks. Thereupon the airship cruised toward the Skagerrak and made what appeared to be an important discovery. At 4 a. m. it sighted from an altitude of 2,200 meters a detachment of 12 large ships and a number of cruisers in the Jammer Bight. Turning to course SW. in order to distinguish further details the airship could only make out that this force, which had been proceeding on line of bearing with an advanced screen of light cruisers, had now turned to the southward and was steaming at full speed. At the same time the *L-24* was fired on by two of the cruisers and forced off into the clouds to the NW. While a heavy mist lay over the water and made observations from above very difficult, the clouds overhead parted, so that on every attempt of the airship to approach this detachment it was taken under heavy fire. Even fishing vessels, which appeared to be lying harmlessly at their nets, hoisted the Danish flag on every appearance of the airship and joined in the fire. When a cloud bank finally closed down to 800 meters the contact with this enemy force had to be abandoned. Meanwhile the southerly winds had freshened considerably and forced the ship to return. At 11 a. m. the ship had reached a position over Tondern, but since weather conditions were unfavorable there it landed at 6 p. m. at Hage.

To what extent these observations of the *L-24* were in agreement with the actual facts of the case and exactly what class of ships were present at the time in the Jammer Bight has never been definitely ascertained. All that has been admitted from English sources is the statement that the detachment sighted might have been a convoy, but its strength, disposition of forces, and the purpose have not been stated. (Corbett: *Naval Operations*, Vol. III, page 416.)

When Admiral Scheer, however, received the report of the *L-24* stating that a number of enemy ships including 12 large units were sighted in the Jammer Bight, he thought he saw in this an answer to the puzzle as to the location of the British fleet after the conclusion of the daylight engagement. Thus, it did not now appear

remarkable that the German destroyer flotillas had found no opportunity to attack during the night and that to the general surprise the British fleet had not been sighted again by the Germans. Apparently, the British fleet, or at least a part of it, had, owing to their well-known apprehension of night torpedo attacks, retired to the northward after nightfall, to wait for daylight in an area to the eastward of Hanstholm.

But before the report of the *L-24* had been received by the commander in chief, Admiral Hipper had reported at 3.55 that the *Derfflinger* and *Von der Tann* had only two turrets ready for action, the *Moltke* had 1,000 tons of water in the hull of the ship and the *Seydlitz*, which had arrived at 3.40 off Horn Reef, was severely damaged. Therefore, Scouting Division I could not be considered for any further severe action and was dispatched to port by orders of the commander in chief, while he himself proposed to await further developments with the main body of the fleet off Horn Reef. For the immediate protection of the fleet against surprise attack, the *L-17* cruised at the time about 50 miles WSW. to WNW. of Horn Reef, while the *L-13* covered the area to the north and west of Terschelling and the *L-11* searched for enemy craft to the NW. of Helgoland. As the last-named airship passed over Helgoland it was not able to see the island on account of the low-lying mists, and encountered cloud banks at higher altitudes which restricted the range of visibility to about 2 to 4 miles. At 4 a. m., however, it sighted smoke clouds to the northward and continuing on in this direction was able to make out 12 large warships and numerous light forces, course NNE. at high speed about 90 miles NW. of Helgoland.

This force was the British battle cruiser fleet, although the number of large warships was considerably overestimated and probably included the armored cruisers of the First and Second Cruiser Squadrons. [Fig. 52, Notes G, H, and I indicate reports made by *L-11*.] Commander Schutze immediately reported this force by radio to the commander in chief and at an altitude of from 1,100 to 1,200 meters sought to maintain contact by tracking. He was soon taken under a heavy fire by this force and compelled to turn in circles toward the eastward. Thereupon, he encountered at 4.40 another detachment of six battleships accompanied by a number of light craft, about 18, NNE. of the first group. These vessels turned from north to the westward in the apparent effort to effect a concentration with the other force. What he had really sighted the last time were the rear ships of his own battle fleet. While he was maintaining contact with this second group, a third group came in sight about 20 miles to the northward of the group first sighted at about 4.50 a. m., which were estimated as three battle cruisers and four light craft. In reality,

these latter ships were the remainder of Admiral Burney's division, escorted by the *Faulknor*, *Obedient*, and the *Marvel*, which were still attempting to rejoin the British battle fleet. The latter turned behind the airship from the NE. and taking a position between this ship and the other detachment of the British fleet, opened a heavy fire on the airship, together with the other force so that the airship was under fire from 21 large ships and a number of smaller craft. Apparently the airship which was flying between 1,100 and 1,900 meters, was clearly visible in the sunlight, while the mists which covered the water prevented the airship from distinguishing more than one group at a time while the other could only be located by the flash of gunfire. Although the bombardment was fruitless, the explosion of heavy shell in the immediate vicinity of the airship decided the commanding officer to run before the wind to the NE. and at 5.30 all the detachments of surface craft were lost to view. Although at 5.35 the *L-11* again descended to an altitude of 500 meters, the mists near the water were so thick that no better view could be obtained and the ship then cruised out of sight of the enemy between them and its own fleet. This cruising in the vicinity of Horn Reef was continued until 7 a. m. when orders were issued by the commander in chief to discontinue air reconnaissance and the ship returned to the hangar under orders from the commander airship detachment recalling all airships.

The first report of the *L-11* regarding the "12 English battleships and numerous light forces" about 75 miles WSW. of the German fleet was received by Admiral Scheer at 4.30 a. m. Shortly, thereafter, the *L-24* reported a detachment of ships on course south at high speed from the Jammer Bight. The German commander was, however, so certain that the squadrons which he had engaged on the previous day had retired to the northward and that the force reported at 4.19 by the *L-24* were these identical ships, that he was not inclined to the belief that the squadron sighted by the *L-11* could be a part of the British fleet, as in reality they were. He was rather inclined to believe that this latter force might possibly be the Harwich Force, which standing out from port after the news of the battle, had been assigned the patrol of the western exits of the German Bight. In making this assumption he was not perplexed by the relatively large number of 12 battleships reported, since mistakes in types of ships were common in airship observations and on account of the poor visibility conditions which prevailed were rather to be expected. It is very questionable if the detachment reported by the *L-11* would accept battle before concentration with the forces to the northward. The great distance which separated these forces from the German fleet could not be looked on as a challenge to battle. No signs of the enemy forces were seen

from the latter at daybreak, but the weather was so misty that it was barely possible to see further than the length of one squadron. Of the light cruisers only the *Frankfurt*, *Pillau*, and *Regensburg* were available, while the air reconnaissance might fail at any time on account of the uncertain weather and decreasing visibility. Enticing as was the thought of approaching the force sighted by the *L-11*, it still appeared hopeless from the foregoing reasons to bring them to battle. The encounter with the enemy and the consequences would have been largely a matter of chance. For this Admiral Scheer was not ready to accept the responsibility without previous replenishment of fuel and ammunition and the repairs to his damaged ships. Aside from the fact that the flotillas had fired most of their torpedoes and were too restricted in their radius of action for employment in a second offensive, the leading ships of Battle Squadron III had lost considerably in fighting efficiency, while the older ships of Squadron II after the loss of the *Pommern* and the night action could not be exposed immediately to the requirements of a modern battle.

The commander in chief, therefore, decided very correctly to abandon further operations and at 4.45 ordered Squadron II to return to port. The remaining squadrons were, however, formed in column in battle line, Battle Squadron III and Scouting Division II having the highest fighting efficiency nearest the enemy. Squadron I and the Scouting Division IV to the southward of these, while the flotillas were disposed as an antisubmarine screen. The fleet was, therefore, in readiness to resume the engagement on the appearance of enemy forces near Horn Reef. Admiral Scheer was largely influenced in this decision to remain in the vicinity of Horn Reef by the fact that since 1.47 he had been without reports from the *Lutzow*. According to the last reports this ship should have been 70 miles NW. of Horn Reef on course south at 7 knots. Admiral Scheer was, however, not forced to wait much longer for an answer, for soon the *G-40* in reply to an inquiry stated that the *Lutzow* had been blown up and the crew taken off by the destroyers. Thereupon, the last reason for remaining in the vicinity, in which the ships had been repeatedly forced to sheer out to avoid suspected torpedo attacks, had vanished, since the maintenance of the field of battle in naval warfare is useless—in contradistinction to war on land—once the contact with enemy forces has ceased to exist. At 5.07 the commander in chief, therefore, gave the order "return to port by squadrons." One-half hour later he received the radio from the *L-11*, reporting the presence of three enemy battle cruisers 70 miles to the SW. of Horn Reef in the vicinity of the other forces and shortly thereafter the further report of six enemy battleships. But owing to the prevalent visibility conditions it was evident that the

airship might easily mistake the number of ships in the locality and from this message it was apparent that the enemy which were to the northward of Helgoland were stronger than originally assumed. From the same message it was learned also that these ships had turned to course west immediately upon sighting the airship. In this Admiral Scheer could find only a confirmation of his previous assumption that the enemy would not seek battle without first closing the forces reported to the northward. At 5.47 the *L-11* further reported that the forces he had sighted had turned to the northward and that contact had been lost, also that the position of the airship was uncertain. Thus the position of the enemy as reported by the airship must also be uncertain, and these forces could not then be located and brought to battle without adequate scouting and a large-scale operation. For these reasons the last reports of the airship could not influence the commander in chief to alter his decision. What Admiral Scheer had already attained was "glory enough to rank him with the greatest fleet commanders of all time" (Corbett: Naval Operations, Vol. III, p. 418).

The one hope which remained to the British fleet for counterbalancing the losses suffered in the day engagement did not rest in a renewal of the artillery duel, in which it had shown itself inferior on the previous day, but only in the employment of the underwater weapons of naval warfare.

On the previous evening at 11.15 p. m. the mine layer *Abdiel*, under Commander Curtis, on orders from Admiral Jellicoe, had left the battle fleet and advanced at 31 knots on course SSE. toward Horn Reef. This vessel was to lay a mine field 15 miles SW. by W. of Vyl Lightship, to the westward of a similar mine field laid on May 4 consisting of a hook-shaped barrier on the probable line of retreat of the German fleet. This was a further proof that Admiral Jellicoe had counted on Horn Reef as the objective of the German fleet during the night advance. Unseen by the German craft, this vessel had reached the initial point of the mine barrier by 2.24 a. m. and had completed its mission of laying the mines by 3 a. m. The mines were set at 4.5 meters under low-water level with a space of only 10 miles free between the two mine fields, so that there was reasonable certainty that the German fleet would strike one or the other mine field during the return to port. Unnoticed as on the approach to this locality the British minelayer completed the task assigned and retired at 30 knots to the northward.

Almost simultaneously with the arrival of the *Abdiel* the *E-55*, *E-26*, and *D-1* appeared off Horn Reef. These boats had left Harwich on May 30 and in accordance with the plan for British fleet operations which had been scheduled for May 28 took station to

the westward of Vyl Lightship with an interval of 8 miles between boats. [Note X, fig. 51, and Note I, fig. 9.] A further group consisting of the destroyer *Talisman* and the submarines *G-2*, *G-3*, *G-4*, and *G-5* had received orders to take station on the fourth meridian 80 miles to the NW. of Borkum Reef and had taken up these positions on May 31. [Notes J and I, fig. 9.] When the British operations planned for May 28 had been shattered by the German fleet advance, it still appeared that the submarines might take station to advantage in accordance with the original plan, as a more favorable position for attacking the German ships returning to port could hardly have been devised. In this, however, the British overlooked the fact that the original orders for these boats were for them not to show themselves until June 2, but to remain on the bottom, and since these boats had received no information regarding the change in plan, they acted accordingly. Thus the German fleet in returning to their bases steamed directly over this line of submarines without the latter making the slightest attempt to attack. The presence of enemy submarines in these waters was however strongly suspected and several ships thought they were being attacked between Vyl Lightship and Horn Reef—an uneasiness which can probably be attributed to the *V-4*, which was thought to have been sunk by a submarine. For a time the torpedo defence fire against suspected submarines was so energetic in Squadron II that the light cruisers which were drawn to the scene by the gunfire were themselves endangered and the commander in chief was forced to order the firing to cease.

This gunfire had scarcely been silenced when the fleet approached the mine field laid by the *Abdiel* on May 4. The mine-sweeper division which had steamed out to meet the fleet reported nothing suspicious. Individual drifting mines were so common in this area that these could not be regarded as a warning. The cruisers of Scouting Division IV and seven ships of Squadron I had already passed the barrier, while the *Derfflinger* and *Von der Tann* were steaming up on the port side of the column to join the *Moltke* at the head of the fleet when at 6.20 the *Ostfriesland*, directly ahead of the fleet flagship, ran onto a mine. The cable and part of the mine case fell on the ship's deck, so that the detonation could not have been the result of a submarine's torpedo as first suspected. The effect of this explosion was extremely small, thanks to the excellent underwater subdivision of the hull. Although the protective bunkers and double bottoms in four compartments to starboard were flooded, one man killed and eight slightly wounded, the torpedo bulkhead, although slightly leaking in one place, kept any dangerous amount of water out of the hull and the ship was soon able to make 15 knots and return to port under her own power. On orders from

the commander in chief the other ships following the *Ostfriesland* held their course and escaped any further damage since the enemy mines were spaced about 10 to the mile.

At 9.40 Commodore Heinrich turned about and advanced with the *Regensburg* and three boats of Flotilla IX toward Graa Dyb Lightship [position shown in fig. 53] in order to meet the *G-40* and other boats which were standing in with the crew of the *Lutzw* on board. At the same time the commander, First Half Flotilla, Lieutenant Commander Albrecht, stood out toward Lyngvig through Normands Channel with the *G-39*, *V-73*, and *V-88* in order to tow into port the *S-32*, which was anchored disabled. During the day it was possible to pick up these disabled boats and return to port.

Toward 7 a. m. the *Seydlitz* had been able to close the other ships of the battle fleet. But the approach to the coast was very difficult for this battle cruiser. As a result of the great mass of water which had penetrated the ship it was hard to estimate the speed of the ship through the water, while most of the charts had been lost in the battle or so badly smeared with the blood of the wounded that they were unreadable. The reserve charts, as well as the gyro compass, were located in a compartment which was flooded. Even the reserve gyro compass installation had suffered from the moisture. With the loss of practically all navigational facilities it is not extraordinary that the ship missed the lightship and ran aground at 3.40 a. m. to the eastward of North Ton Buoy of Horn Reef Shoals. Fortunately the ship was able to back off into deep water, and then, accompanied by six boats of Flotilla VII; to round the lightship and close the rear of the fleet at 6.40 a. m. Although up to that time the ship had been able to make moderate speed it was now forced to drop to 10 knots and later to 7 knots in order to ease the pressure on the severely strained bulkheads forward. But even though the ship was now drawing 13 meters forward, with the fore-castle under water, it was able to navigate the Amrum Bank Channel, piloted by the *Pillau*, and escorted by five mine sweepers as a submarine screen. Toward 10 a. m. the ship grounded again opposite Hornum, and could only get clear by counter flooding in the after compartments. At 3.30 p. m. the situation had become critical. The only remaining buoyancy forward was the broadside torpedo room, while the list to port had considerably increased. The ship was steered by the stern, and an attempt on the part of the *Pillau* to assist with a tow was a failure, while the increasing seaway and the freshening breeze to force 8 greatly endangered the vessel. As a consequence the *Seydlitz* was only able to reach the Jade on June 2 with the assistance of two pumping vessels, while even then the most extraordinary efforts were necessary to stop the leaks and finally

get the ship into the drydock. The fact that this ship was saved was due to the superb seamanship displayed by the commanding officer, Captain Von Egidy, the executive officer, Commander Von Alvensleben, and the battle-tried personnel under their command.

While the *Seydlitz* was still to the southward of Anrum Bank on June 1 the other ships of the fleet had reached the river mouths, protected from submarine attack by sea planes. Only on his return to port did Admiral Scheer receive reports which indicated the total extent of the enemy losses. Thus the *S-16*, Lieutenant Commander Loeffler, reported that he had two prisoners aboard who believed themselves to be the sole survivors of the battle cruiser *Indefatigable*. Another boat asked if it was known that the battle cruiser *Queen Mary* had been sunk, while the further reports of Admiral Hipper showed that still another battle cruiser must have been blown up. Further the loss of a number of enemy destroyers was fully determined, while the reports of losses sustained by the German fleet remained within moderate limits. At 10.16 the radio station at Neumunster reported that the enemy main body which was about 20 miles WSW. of Horn Reef Lightship had started to return to port, course north speed 20 knots. At 4 p. m. Admiral Scheer dispatched the following message to his forces: "In proud and thankful acknowledgment of the perfect leadership of the squadrons and the devotion to duty of the personnel I wish to express to the fleet my heartiest appreciation, while remembering with deepest regret those comrades who offered their blood and their lives for their country. Germany and our Kaiser 'uber alles'!"

Five ships of Squadron I immediately took over outpost duty near the Schillig Roads (*Posen, Nassau, Westfalen, Thuringen, and Helgoland*), while four ships ready for action anchored outside the locks of the Jade. The remaining ships proceeded directly to port to refuel and take ammunition. Of Squadron III, which bore the brunt of the battle with the battle cruisers, only the *König, Grosser Kurfürst*, and *Markgraf* required a more or less extensive overhaul period, while the other ships were able to effect repairs during the regular overhaul periods without restricting their fighting efficiency.

The report of the radio station at Neumunster regarding the retirement of the British main body was correct. At 5.30 a. m. Admiral Jellicoe had abandoned his battle formation to cruise to the northward in open formation well extended to search for disabled ships, friendly and enemy, in the vicinity of the night action and in particular to find the *Lutzow*. This change of formation had scarcely been effected when the light cruiser *Dublin*, which had lost contact with Commodore Goodenough's squadron during the night, and was steaming alone to the northward, reported an enemy armored

cruiser and two destroyers. The position given in the report was about 15 miles abeam of the *Iron Duke's* position at that time, but was rather uncertain as the navigator of the *Dublin* had been killed in the action with the German Scouting Division IV and the charts had been destroyed. Admiral Jellicoe was not influenced to change course by this report and held his own course to the northward, but Admiral Beatty, who had now come in sight of the fleet flagship, requested permission at 6.15 to scout to the eastward and southward in order to capture the enemy ships reported by the *Dublin*. In his opinion this vessel could only be the *Lutzow*. What the *Dublin* actually saw was the light cruiser *Rostock* with the destroyers *V-71* and *V-73*, which cruiser shortly after, while 50 miles NW. of Horn Reef, was abandoned by the crew and sunk. The sinking of this vessel was so expertly screened by an artificial smoke screen that the *Dublin* could not determine that it had been sunk and on an inquiry from Admiral Jellicoe replied that the enemy cruiser had apparently disappeared in the mists at high speed. The advance of the British battle cruisers to the southward and eastward was naturally without result. At 7 a. m. Admiral Jellicoe also turned with the battle fleet to a southeasterly course and thereupon received a report from the Admiralty stating that a disabled enemy cruiser which had been previously reported to him at 5.30 had been abandoned by the crew and was still afloat on the present course of the fleet. But this vessel was not sighted by any British ship.

Admiral Beatty wished to scout in the direction toward Horn Reef, but received orders to close the fleet and take station to the eastward of the battle fleet which at 8.16 had returned to course north. At that time the right wing column of the battle fleet, the Fifth Battle Squadron, was about 30 miles WNW. of Horn Reef Lightship. A quarter of an hour later Admiral Beatty turned on course NNE. to take station to the eastward of this squadron. But he apparently did not hold this course for a sufficient length of time, owing to a difference in dead reckoning positions, and, on turning to the northerly course at 9 a. m., he was in the wake of the fleet about 30 miles astern of the *Iron Duke*. The latter was now approaching the scene of the night action where the German fleet had broken through the rear screen of the British fleet. This was soon evident from the oil patches, wreckage, life preservers, and bodies which were seen floating in the area where severest night engagements had been fought. But here again was a further disillusionment, for, contrary to expectation, were found the evidences of the severe losses which had been sustained by the Fourth Destroyer Flotilla. In the immediate vicinity the *Sparrowhawk* was drifting disabled in the waves. About an hour after the sinking of the *Elbing* this destroyer had supposed itself attacked

by a German submarine and the last remaining gun had been manned for defence when it was found that the suspected submarine was in reality a raft containing the survivors of the *Tipperary*, who were only saved after the greatest exertions. Soon thereafter the destroyer *Marksman* and the cruiser *Dublin* came in sight. At 6 a. m. the former vessel, in company with the *Obdurate*, had managed to rescue the fully exhausted commanding officer and two men from the wreckage of the *Ardent*, while the *Maenad* picked up 10 men from the crew of the *Fortune*. The *Marksman* then tried to take the *Sparrowhawk* in tow but after vain attempts, lasting several hours, this expedient had to be abandoned on account of the increasing seaway and the boat was finally sunk by gunfire on orders from Admiral Burney, who was approaching with his division at that time. Shortly before this the commander in chief himself passed through a mass of wreckage, and after learning of the loss of the *Tipperary* from the *Marksman*, the destroyer *Oak* found a life buoy belonging to the *Ardent*. At another place a buoy of the *Black Prince* was found. The destroyer *Acasta* was taken to Aberdeen in tow of the *Nonsuch*, the *Porpoise* was escorted by the *Garland* to the Tyne, the *Spitfire* also laid course for the latter port, while the other destroyers rejoined the fleet formation with the exception of those which had to be detached for lack of fuel. After this short excursion to the SSW., at 10 a. m. the battle cruiser fleet had again resumed station and thus all detachments had then rejoined the fleet with the exception of the sixth division, which was unable to close before evening. It was now apparent that a further delay in that vicinity might bring new dangers to the fleet.

At 10.17 Admiral Jellicoe received a communication from the Admiralty stating that German submarines had received orders at 7.20 a. m. to advance to the northward of Horn Reef to search for the *Elbing*, and from 10 to 20 minutes after the receipt of this message the *Benbow* and *Colossus* suspected submarine torpedo attacks and thereby caused other ships to sheer out of formation. Admiral Jellicoe thereupon decided to abandon further search for disabled German vessels, since these might well have been sunk in the meantime. At 11 a. m., therefore, the fleet swung to course N. by W. while about 50 miles NW. of Horn Reef. In order to make certain, however, that no disabled or missing British ships were left behind he ordered the battle fleet and battle cruiser fleet to steam in open formation, well extended to cover the scene of action of May 31. They thereby ran the risk of striking the wrecks of the *Queen Mary*, *Indefatigable*, and *Invincible*. Therefore, Admiral Beatty deemed the moment propitious to inform the commander in chief of the exact latitude and longitude in which these ships had been

sunk. The radio message in which this information was given had quite an unexpected effect on the flagship. On inquiry from the commander in chief, Admiral Beatty stated that the *Queen Mary* and *Indefatigable* had been lost at 5.30 and 5 p. m. on the previous day, and the question showed that Admiral Jellicoe had been unaware of his loss up to that time. This communication had a very depressing effect on the flagship. The British commander was entirely unprepared for the news of such severe losses; who knows but what a timely knowledge of these losses might have prompted him to a more energetic offensive during the day engagement of May 31 and the morning of June 1 in order to make good the damage inflicted on his fleet? In any event it was a fateful neglect on the part of the commander of the battle cruiser fleet to inform his superior of the loss of these vessels only at this late date. Further apprehension was caused the latter by the uncertainty regarding the missing destroyers of the Fourth Flotilla and also the fact that he did not know whether the *Marlborough*, *Warspite*, and *Warrior* could be safely brought to port. Although the greatest eagerness prevailed in the Admiralty for news regarding the outcome of the battle, Admiral Jellicoe restricted his communications to the bald statement at 12.08 p. m. that the further search for disabled German cruisers in the prevailing weather with poor visibility had been without result, that he would continue the search for his own disabled ships, and that the Harwich Force, with the exception of a submarine screen for the *Marlborough*, was not needed.

At 12.25 Admiral Jellicoe came back again to the question of the loss of the *Queen Mary* and *Indefatigable* and inquired whether these ships had been sunk by mines, torpedoes, or gunfire and learned from Admiral Beatty that in all probability the loss was occasioned by enemy gunfire. He then inquired of the commander Second Cruiser Squadron regarding the *Duke of Edinburgh* and the *Black Prince* and was informed that the former ship was with the squadron while the latter was missing. Scarcely had Admiral Jellicoe received this last piece of ill news when a further message from the *Marlborough* to cap the climax stated that that ship was being attacked by enemy submarines. (12.44.)

While ill tidings were thus following one after another, in rapid succession, the British commander in chief sought in vain for definite news of the German losses. Toward 1 p. m. he was informed by the commander of the First Squadron, that at least one of the flotillas, the Twelfth, had made a successful attack during the night, although it was erroneously reported that a German battleship had been sunk in that engagement. Admiral Beatty

reported that, aside from the *Lutzow*, another German battle cruiser had probably been sunk, an assumption which, however, was later found to be unsupported. Further he had to report the loss on the English side of the destroyers *Nestor*, *Onslow*, [the *Onslow* regained port], *Nomad*, and *Turbulent*. The hopes still remained that the Fifth Battle Squadron would be able to report some success but this was not fulfilled. In reply to an inquiry, Admiral Evan Thomas reported that although a large number of hits had been observed, none of the German vessels had been forced to fall out of the formation, while, on the other hand, the *Warspite*, *Malaya*, and probably the *Barham* had sustained such severe damage that the whole Fifth Squadron with the exception of the *Valiant* would require docking. Soon thereafter (3.05) Admiral Jellicoe learned from a radio message sent by the *Engadine* that the armored cruiser *Warrior* had had to be abandoned 60 miles to the eastward of Aberdeen.

This cruiser had taken part in the engagement which had proven so fatal to the *Defense* and, receiving 15 major caliber hits and 6 smaller caliber hits, had only escaped complete destruction by the accidental blanketing of the *Warspite*. The aircraft tender *Engadine* had then taken the damaged cruiser in tow. The ship then had over 100 dead and wounded aboard. During the night the wind and sea had increased considerably, water filled both engine rooms in an alarming manner and at 8.45 a. m. the situation had become so critical that the ship had to be abandoned. They were, therefore, forced to be content with saving the crew, a dangerous and difficult task in the southwest storm, but the *Engadine* was able to take on board all the crew of the cruiser, including the wounded. The *Engadine* thereupon laid course for the Firth of Forth, while the seas were breaking over the wreck of the *Warrior*. When the Second Cruiser Squadron appeared on the scene where this cruiser was last reported, nothing was to be seen of the wreck.

From noon on Admiral Beatty searched the field of battle with his ships disposed on a 30-mile front between the wrecks of the *Queen Mary*, *Invincible*, and *Indefatigable*, while the battle fleet steamed on the western flank to the northward. But neither the *Nestor*, *Onslow*, *Nomad*, *Turbulent*, nor the flotilla leader *Broke* were sighted, and at 5.15 p. m. Admiral Beatty, while 50 miles SW. of Lindesnes, set course for the Firth of Forth, where the *Valiant* had already preceded the battle cruiser fleet under destroyer escort. At the same time the cruiser *Canterbury* was dispatched to Harwich. Several ships buried their dead at sea, and at 8.05 p. m. the battle fleet, with the *Barham* and *Malaya*, turned to course NW. to return to Scapa Flow.

While all the other ships of the Grand Fleet had been steaming away from the German bight since 4 p. m., the *Marlborough*, after Admiral Burney had transferred his flag, had also been on a northerly course, but at 5.30 had changed to S. 38 W. on orders from the commander in chief to pass to the southward of the Dogger Bank barrier en route to the Tyne or to Rosyth. Although the destroyer screen requested from Commodore Tyrwhitt could not possibly have reached this vessel at the time and her reduced speed made her an easy target for German submarines, she was left to proceed without adequate escort. Admiral Jellicoe was anxious to remove the remaining ships from the submarine danger zone as quickly as possible.

Although no German submarines had been with the fleet on the day of the battle, on May 31 the following submarines were in readiness for action in the Ems, *U-19*, *U-22*, *U-46*, and *U-64*, while the *U-53* lay in readiness at Helgoland. Originally they had been held in readiness to repel any attack of the English forces on the German coast in the absence of the fleet. Since, however, in the course of the afternoon (May 31) it developed that apparently the entire British fleet had participated in the action, it seemed better that these boats should be dispatched to the northward in order that they might be employed to advantage the next morning when the uncertainty of the situation had been cleared. Therefore, at 9.45 p. m. on May 31, Commander Bauer, leader of submarines, on his flagship *Hamburg*, with Scouting Division IV, had sent the following message through the *U-67*, cruising north of Terschelling, viz. "To Commander Third Half Flotilla (Commander Gayer): All available submarines proceed to northward, reporting positions at 6 a. m."

At the Ems, where the events transpiring at sea had been followed intensely in so far as this was possible from the radio communications intercepted, Commander Gayer had decided on his own initiative, to proceed with the three boats at the Borkum Roads to the meridian of Terschelling Bank Lightship to establish a line about 45 miles long to await opportunity to attack damaged British vessels en route to the English bases to the southward. The radio orders of the leader of submarines found these three boats already underway, and soon they were proceeding at full speed with the proper interval between units, past a point 40 miles to the northward of Terschelling on course north. On the other hand, the *U-53*, which had arrived at Helgoland from the Baltic only that morning, and the *U-67* [her position is shown in fig.53], which had been lying on the bottom after sighting two enemy submarines in a fog near Terschelling, were in ignorance of these orders issued by their commander.

During the night the cruiser *Arcona*, which was designated to relay messages to the submarines, received a large number of mes-

sages regarding heavy fighting to the northward of Horn Reef. At 4.30 a. m. (June 1) the *U-46* reported at Borkum Roads from Emden after changing her periscope. The commanding officer was definitely informed of the situation and further that enemy forces were apparently attempting to reach the scene of action from the northward. At that time the other submarines, *U-19*, *U-22*, and *U-64* were from 45 to 70 miles to the northward of Terschelling according to their positions reported by radio. At 7.30 a. m. the *U-22* sighted a destroyer of the "M" class which however rapidly disappeared without being followed by other men of war.

Meanwhile the commander in chief had asked the leader of submarines if a submarine might be dispatched to the *Elbing*, which was supposed to be about 50 miles WNW. of Horn Reef. Since the radio transmitter of the *Hamburg* had been damaged in action, the leader of submarines requested that this order be transmitted through the *Arcona* to the commander Third Half Flotilla. This was received at 9 a. m. and transmitted directly to the *U-19*, while the *U-22* and *U-64* received the message later in the day; the *U-53* also left Helgoland to search for the *Elbing*.

Scarcely had this order been dispatched when the main decoding station at Neumunster reported that a disabled English ship was about 100 miles to the northward of Terschelling on course WSW. (10.15).

This was the *Marlborough*. As early as 5 o'clock this ship had sighted a Zeppelin and fired at it without result. Thus the position of the ship being known it could only expect further attacks from the German coast. At 10.30 two German submarines were sighted to the westward about 8 miles distant which appeared to be headed for the *Marlborough* with conning tower awash. (It is possible that one of these was the *U-64*, which boat, however, did not see the *Marlborough*.) When the boats submerged five minutes later, the *Marlborough* at 11.50, while 70 miles north of Terschelling, changed course to S. 56 W. At about this time Admiral Scheer ordered the Commander Third Submarine Half Flotilla to dispatch submarines to attack the British man-of-war reported by the station at Neumunster. The *U-46* was in the most favorable position for this attack. On the assumption that this boat would be about 20 miles to the southward of the English ship on the receipt of these orders and that the latter would be steaming at 7 knots the *U-46* would then have to proceed to the southwest shoal of the Dogger Bank in order to intercept the enemy ship at the exit to the eastward of Silver Pit. These instructions had not yet reached the submarine when at 11.30 a. m. while 65 miles to the northward of Terschelling two vessels were sighted one point off the starboard bow, which were made out as one destroyer with four stacks (light cruiser *Fearless*)

and one battleship of the *Iron Duke* class (*Marlborough*). The battleship had considerable list to starboard and was down by the head making about 10 to 12 knots on zigzag course in a general south-westerly direction. The four bow tubes were immediately made ready for action and at 12 noon the boat was about 3,000 meters distant bearing 70° . The *Marlborough*, however, had sighted the torpedo fired from an oil patch about 2 miles distant and turned off 6 points so that the torpedo passed about 50 meters to port. After this countermanceuver the commanding officer thought that further torpedo shots would be useless as well as a pursuit of the enemy vessel on the surface on account of the increasing sea from SW., although it was possible that the damaged battleship would thereby be further reduced in speed and the single destroyer as escort was insufficient protection against submarine attack. It is possible that the nervous tension due to the long wait off Terschelling may have had some influence on this decision. The *U-46* continued the advance to the northward and thus relinquished a brilliant opportunity to inflict further damage on the enemy after the battle. At 2.45 p. m. the *Marlborough* made contact with the much needed Harwich Force and thereupon received a screen of eight destroyers as a protection against submarine attacks.

One-half hour after the failure of the *U-46* attack, the *U-19* farther to the northward and about 20 miles eastward of the position reported by the Neumunster Station sighted a light cruiser and one destroyer (probably of the Fourth Flotilla), which the submarine was unable to approach. At 2 p. m. the *U-46* reported by radio the failure of the attack, and the *Arcona* was thereupon able to transmit to this boat the instructions regarding the pursuit toward the southwest shoal of the Dogger Bank. In the correct assumption that this message must apply to the ship attacked near noon the commanding officer turned to follow this vessel, but sought in vain for the damaged ship in the rain and decreasing visibility on course SSW., then SW. by S.

At the same time the third boat, *U-67*, with the commander Fourth Half Flotilla aboard, Lieutenant Commander Prause, also sought to make contact with the disabled ship reported by the Neumunster Station. Finally this boat reached the same conclusion as had the commander Third Half Flotilla, and laid course for Silver Pit, but made such low speed against the increasing wind and sea that no enemy ships were sighted.

Meanwhile the other submarines had advanced about 50 miles WNW. of Horn Reef, where a few hours before the entire British battle fleet had been cruising, and sought in vain for any trace of the *Elbing* or her crew. From 7.15 on the *U-22* passed oil streaks miles wide, and cruised through traces of wreckage, bodies, and

life buoys, finally fishing up one such buoy marked "Turbulent." An attempt to communicate with the *U-19* and *U-64* was without result. Meanwhile the commander Third Half Flotilla had received information of the greatest importance from the station at Neumunster. The latter reported that the enemy main body was in position 20 miles WSW. of Horn Reef at 10.47 a. m. The submarines then received orders as follows: *U-64* to proceed toward the Great Fisher Bank, *U-22* toward the Firth of Forth, and *U-19* toward Peterhead, in order to intercept the Grand Fleet in its expected turn to the westward. This occurred. By dawn, however, all their boats were forced to abandon further operations, as the bad weather which had set in made the use of any weapons impossible, and greatly decreased their speed. On the return toward Lister Deep the *U-64* was attacked at 8 a. m. June 2 by an enemy submarine 3 miles to the westward of Vyl Lightship. One of the torpedoes fired by the British boat passed close astern, the second 5 to 10 meters to one side, while the third exploded on the bottom after broaching near the bow. At noon June 3 the boats cruising to the NW. of Horn Reef were recalled.

Thus while all efforts to attack the retiring enemy fleet from this area had remained fruitless the hopes placed on the submarines in the immediate vicinity of the enemy bases were also doomed to be unfulfilled. Since the Germans had counted on the appearance of British forces from the southern ports during the progress of the fleet operations, Commander Bartenback, commanding the submarine flotillas in Flanders, had stood out from Zeebrugge on the night of May 30-31 with all available submarines. The primary mission of this flotilla was to lay mine fields near the exits from Harwich and the Thames, in the vicinity of Sunk Lightship, Inner Garbard and Galloper Lightships during the night of June 1. The following boats were assigned to this duty: *UC-10*, *UC-6*, and *UC-1*, under Lieutenants Nitzsche, Ehrentraut, and Ramien. At the same time the following boats were ordered to be on stations at 4 a. m., June 1, on a line 18 miles long near the coast in the vicinity of Lowestoft to attack warships standing to the northward, viz: *UB-17*, *UB-29*, *UB-19*, *UB-10*, *UB-12*, and *UB-6*. (Lieutenants Wenniger, Pustkuchen, Lieutenant Commander Becker, and Lieutenants Kiel, Salswedel, and Neumann.) At 8 a. m. the boats on the eastern flank of this line were to swing to the southward in order to form a second line with boats disposed at interval of 5 miles perpendicular to the first line for the purpose of intercepting enemy warships which were returning after the advance and were steering a more southerly course from the Thames. In the absence of developments up to 9 p. m. all boats were to advance to the eastward to form a third line 30 miles in length by 7 a. m., June 2, across the Hoofden between the

shoals of Smiths Knoll and the mouth of the Maas. From this line until 5 p. m. the boats were to cover the zone to the line of the fifty-second parallel of latitude between Orfordness and the Maas Lightship. In this manner it was hoped to cover the entire zone crossed by the enemy ships by boats cruising regularly throughout the area in question. In order to locate the enemy forces which might already be at sea and thus in a position to attack the German fleet on the flank during the proposed operations, the flotilla commander embarked on the *UB-18* to cruise together with the *UB-23* along the coast of Holland as far as Terschelling and finally to attach themselves to the southern flank of the third submarine scouting line.

Only one of the boats was unable to carry out this project, having suffered a machinery derangement in putting to sea. The *UC-6* ran afoul of a submarine net near Inner Gabbard, but was able to get clear and lay mines, together with the *UC-10* in the locality ordered at midnight May 31 and June 1. Of the other boats engaged in this undertaking only the *UB-10* sighted strong enemy forces.

These were eight enemy destroyers which passed the submarine on a southerly course about 9 a. m. June 1, 20 miles to the eastward of Southwold. All other boats encountered only individual destroyers aside from the usual patrols and seaplanes, and this was all that was seen of the Harwich Force during the offensive. An effort which was made to hold the boats on the third line for 24 hours longer as a result of the developments in the North Sea in the meantime was doomed to failure on account of the impossibility of establishing radio communication. As the boats took up position on the fourth line according to the plan and retired at 5 p. m. they were unaware of the events which had meanwhile transpired in the fleet engagement.

The most favorable opportunity for attack lay with the boats of the High Sea Fleet flotillas which had been waiting for a long time in the vicinity of the enemy bases to the northward. [For their positions see fig. 53.] Of these submarines only the *U-67*, *UB-22*, *U-70*, and *U-32* had received the code words announcing the commencement of the fleet operations, while all the other boats were totally unprepared. On the evening of the battle at 7 p. m. the *UB-21*, however, was able to fire a torpedo in shoal water at an enemy destroyer distant 1,200 to 1,400 meters in the vicinity of the Humber. The destroyer was hit and lay in a cloud of smoke, while the submarine withdrew before the pursuit of the patrol forces to deep water. Soon thereafter the submarine retired toward her base.

During the following night the *U-52*, which was cruising in the vicinity of the Firth of Forth between Longstone and St. Abbs Head, sighted at 3.18 June 1, two darkened warcraft, either light

cruisers or destroyers, which were about to enter the mine-strewn zone near the entrance to the Forth. Soon thereafter an incomplete radio message was intercepted reporting a battle in the North Sea. Since the radio reception with the net cutters as antenna supports was uncertain and the radio masts had been broken off, the submarine proceeded to the northward through the increasing wind and sea to seek junction with the *U-24* and *U-70*. At 6.20 the *U-24* was encountered, but as this boat had received no radio message the submarine returned to its assigned zone of operations.

Meanwhile the *U-32* which was also operating in the vicinity of the Firth of Forth had stood out as far as possible on account of the poor visibility conditions and the increasing bad weather. At 9.15 a. m. this boat had sighted a destroyer and in the hope of achieving at least some result on the last day of the undertaking, had fired a torpedo at her at about 1,200 to 1,500 meters. Owing to the poor weather conditions prevailing the torpedo missed.

There now appeared from the eastward the first of the returning warships which had participated in the battle. This was the badly damaged *Warspite* which at this time entered the zone of operations of the submarines near the Forth. At 10.35 a. m. this battleship was about 100 miles ENE. of May Island and was approaching the protection of the harbor without destroyer escort or protection when two torpedoes suddenly passed close by on each side of the ship. In the rough sea, however, no trace of the submarine could be seen. The attack had been made by the *U-51* under Lieutenant Commander Rumpel. Although the submarine had been able to hold her depth during the approach in spite of the heavy sea and spray, the periscope submerged just as the shot was about to be fired at a distance of 600 meters. Even though both bow tubes were fired only one torpedo left the tube which soon thereafter broke the surface and betrayed the attack, as the battleship immediately turned away to the northwestward and steering zigzag courses retreated at high speed. After a radio had been dispatched reporting this event, very heavy enemy radio traffic was noted, and as a result an energetic counter-offensive was to be expected. This the commanding officer did not believe the boat able to endure. Further, he was not fully aware of the nature of this encounter as he mistook the battleship for a vessel of the *Canopus* class and not the *Warspite* and also had not noticed that the vessel had been disabled in battle. He, therefore, abandoned pursuit of the vessel prematurely as he entirely misjudged the speed of which the battleship was capable, and submerging to a depth of 22 meters he retired toward his base during June 2.

The attack, however, had sufficed to alarm the entire coast patrol on the receipt of the message from the *Warspite* reporting the attack. The first destroyer of the patrol was just coming in sight at

12.42 when the *Warspite* sighted the periscope of another submarine which emerged close by the bow. The battleship thereupon signaled full speed in an attempt to ram the submarine but the transmission of the order through the steering engine room to the engine room (which was the only telegraph still in working order) took too long and the maneuver failed. The submarine sighted by the *Warspite* was the *U-63*. This submarine had been cruising on May 31 and June 1 between May Island, North Carr Lightship, and Bell Rock, keeping a vain lookout for enemy warships, and after one engine had broken down was about to return to port, when at 12.30 p. m., while about 40 miles eastward of the Firth of Forth, two or three enemy ships were sighted to the SE., which were steaming at high speed on a northerly course. In the heavy spray the submarine lost the leading ship from view in the periscope, but on looking around again the *U-63* sighted a cruiser on the starboard beam. (In reality this was a destroyer which had just joined forces with the *Warspite*.) Although the vessel had already passed the submarine turned to attack. At this time a loud propeller noise was heard, and turning the periscope the commanding officer suddenly sighted on the quarter a large cruiser with three stacks (apparently the *Warspite*) which was about to ram him while at the same time a shot was fired from one of the guns on the upper bridge. The distance was between 50 to 100 meters at that time. Submerging rapidly the submarine brought up on the bottom at 50 meters and immediately rose to a depth of about 7 meters, was taken under fire but was able to escape by submerging to 27 and then to 35 meters, although pursued and bombed repeatedly by the escorting patrol forces. The submarine thereupon continued on to port.

Meanwhile the *U-52* had returned to its assigned zone of operations near the coast in the vicinity of Berwick. There it was forced to submerge twice during the afternoon to avoid enemy destroyers but at 5.28 p. m. it fired a torpedo at the last boat of a group at a distance of about 600 meters. When the submarine submerged after the attack to 30 meters a severe explosion was heard. The torpedo had made a hit; but at the same moment the rudder jammed. The *U-52* was, therefore, unable to come to periscope depth to observe the result of the shot but was forced to continue steaming in a circle under water at 40 meters. After a quarter of an hour's work it was possible to free the rudder from the obstruction but the steering gear was still out of commission and the commanding officer was forced to return to port past Horn Reef, using the propellers to steer.

In the meantime the leader of submarines, Commander Bauer, had made every possible effort to keep the submarines stationed on the coast of England and Scotland at their stations one day

longer, instead of permitting them to return according to the plan on June 1, since in his opinion, the damaged ships returning from the battle would hardly be able to reach port before June 2. It was further to be assumed that some of these vessels would return to the Tyne instead of going to the Firth of Forth in order to relieve the congestion of the docks at Rosyth. While the German fleet was still at sea returning to port at 9 a. m. June 1 he therefore had the following message repeated twice from the radio stations at Nauen and Brugge: "Since damaged ships returning from Skagerrak are to be expected, the period of waiting off east coast is to be prolonged one day if possible. *U-32* and *U-24* to take station off the Tyne for the same period." This order was at first received only by the *U-24* which immediately proceeded to the Tyne [fig.53]. At 5 p. m. the *U-32*, after repairing the radio antenna which had been damaged by the high seas, was able to get this message and thereupon laid course for the Tyne.

The neighboring boat, *U-70*, had noticed an appreciable increase in the activities of the patrol forces since June 1 and had been forced to submerge so frequently while about 60 miles outside of May Island that the boat was unable to pick up radio messages. Without knowledge of the order extending the period of waiting by one day this boat started to return to port on the same day. Thus most of the German submarines had already left the assigned zones of operation near the Firth of Forth when the British battle cruiser fleet approached from the NE. on the morning of June 2. In particular the most important sector which had been occupied by the *U-32* was now free of submarines, as this boat had proceeded to the Tyne according to instructions received. Thus, the entrance of the battle cruisers into port was accomplished without loss. At the same time the battle fleet was approaching the Pentland Forth, which area had been occupied only by two German submarines from the start. Of these the *U-43* had sighted two patrol vessels on June 1 and a torpedo fired at one of them at 300 meters had gone under the target. This boat then left the assigned sector pursued by the patrol vessels only a few hours before the approach of the battle fleet. This boat had received no information concerning the events which had meanwhile transpired in the North Sea, nor had it received the order to remain on station for one day longer. On the other hand, the other boat assigned to the sector near Pentland Forth, *U-44*, had received the orders to wait on station from the radio sent out from Brugge during the evening of June 1. Soon thereafter the lively enemy radio traffic between the British cruisers and destroyers indicated that enemy warships would also be approaching Scapa Flow. Since it was to be assumed that these

craft would attempt to pass the submarine danger zone during the hours after nightfall, the *U-44* steered in the middle of the assigned sector well out to sea in order to intercept these ships in daylight. Owing to the very poor visibility, however, the submarine was soon forced to submerge to 20 meters. Although the commanding officer had decided to remain on station during June 2, it was found at daybreak that the seas were so heavy the boat could not be maintained at the attacking depth, and further, the increasingly bad weather prevented the boat from making an approach on four auxiliary vessels which were sighted to the NW. soon after coming to the surface. The NW. wind having increased to 9 and 10 in strength, the boat started to return to port, choosing at first a southerly course to reach the line between Firth of Forth and Skagen before steering to the eastward. Therefore, the British battle fleet passed to the northward of the zone of operations of the *U-44* and *U-43* without encountering a submarine offensive on return to its base.

At about the same time the *Marlborough* was approaching the coast near the Tyne from the southwest shoal of the Dogger Bank. On the evening before the wind from WSW. had gradually freshened to force 6 and the increasing sea had increased the difficulties for this badly damaged ship. When some of the bilge pumps became choked the water rose again in the forward firerooms. The situation thereupon became critical and as the ship could not make more than 10 knots, the attempt to reach the Tyne was abandoned and the vessel headed for the protection of the high cliffs near Flamborough Head in order to proceed from there along the coast to the Humber.

Although the *UB-21* and *UB-22* had already left station in this vicinity on the evening of June 1 after a long period of waiting, the *U-46*, on the other hand, was then approaching Flamborough Head. After the failure of the attack of this boat on the *Marlborough* on the previous afternoon it had received orders to follow the battleship to that point. As a result of the bad weather the advance of the submarine had been so slow that at 10.25 a. m. June 2 it was still about 25 miles ENE. of its destination, while the *Marlborough* had already passed the entrance to the Humber about 2 hours earlier. Thus, instead of sighting the battleship, the submarine sighted only five light cruisers and nine destroyers (probably the Harwich Force) on a westerly course, which passed the bow of the submarine distant about 10,000 meters making a shot impossible. At 5.30 p. m. the *U-46* put about close ashore and laid course for the Ems.

Meanwhile the *U-24* and *U-32* cruised in the vicinity of the Tyne without sighting any warships other than a few destroyers. After

receiving a radio from Brugge at 4.26 p. m. June 2 stating that no further damaged vessels were to be expected in that vicinity the two submarines started to return to port at 9 p. m. on that date.

The *U-66* and *U-70* had also made great efforts on June 2 to locate and attack the damaged enemy ships which were en route to their home bases after the battle. Although the *U-66* had already left its self-chosen station near Cromarty Firth at 10 p. m. June 1, in order to reach Horn Reef before dark the next day, it was able to pick up the message from the fleet and repeated from Brugge at 3 a. m. the same night stating that damaged enemy ships were to be expected near the Firth of Forth and the Humber. Further, the boat was able to intercept a message from the station in Flanders ordering the flotilla to remain on station 24 hours longer to intercept returning English forces. From the messages the commanding officer was able to conclude that a large-scale fleet offensive had been in progress in the southern part of the North Sea. He was about to proceed to this locality when he received a message from the *Arcona* stating that damaged English vessels were to be expected approaching from the Skagerrak. He thereupon decided to intercept these vessels on the line between the Firth of Forth and Skagerrak. This decision was reported to the leader of submarines by radio but did not meet with the approval of the latter. According to the radio messages which had been intercepted and further transmitted to the submarines, a number of enemy ships which had been disabled in battle were steering courses for the Humber and Rosyth. If the speed of some of these vessels were assumed to be as low as four knots and taking into account the further delay due to bad weather conditions, it was possible that even as late as the evening of June 3 and the next day there might still be favorable opportunities for attack in the vicinity of the Firth of Forth. The *U-66*, therefore, received orders to patrol that area until the evening of June 4 if possible. This order was not carried out, however, since it developed from further radio messages that the commander in chief did not count on the submarines being able to encounter any further damaged enemy ships from that time on. The commanding officer of the *U-66* thereupon broke off the undertaking. The *U-70* was also en route to port when at 7.30 a. m. June 2 that boat received the radio ordering the submarines to remain 24 hours longer on station if possible. But in a manner similar to the commander of the *U-66*, this officer did not deem it proper to carry out these instructions as he would be unable to reach his assigned sector in sufficient time against the heavy seas, while further the low visibility conditions and the counter-offensive measures near the coast gave no promise of achieving any success. He felt that greater results were probable if he stood further out sea on

the probable line of approach of these disabled enemy ships. In the course of the afternoon the storm died out. Since however nothing was sighted up to 11 p. m., the *U-70* returned to port.

The *U-47*, although without information regarding the events which had transpired in the meantime, held out the longest on its assigned station near Peterhead. There it sighted a destroyer in the high wind from the NW., force 9, on June 2, but was forced to abandon the attack as a shallow torpedo shot in the high seas would have no chance of success. At 10 p. m. this boat also left its assigned station in accordance with orders received before proceeding on its mission and started to return to port, arriving off the Ems on June 4. The majority of the submarines had reached their home bases on the preceding day. On the latter part of the trip to port most of these boats had encountered only enemy destroyers and submarines.

At the scene of the battle the *U-75* was the only submarine which was present at the same time with the Grand Fleet on June 1. This boat had reached the vicinity of the Norwegian coast near Utsire at about 8 p. m., May 31, on its return from the assigned mine-laying operations near the Orkney Islands. On June 1 the boat reached a position about 90 miles to the westward of Hanstholm, without being aware of the events which had occurred in the meantime, and came upon a large field of wreckage filled with drifting spars, life buoys, matting, and oars, while dead fish and sea gulls were thick on the surface of the water. At 3 p. m. the submarine sighted the wreck of the *Invincible* in 57° 3' N. and 6° 0' E., while a British destroyer cruised in the vicinity, but strange to say, the British battle cruiser fleet, which was in the vicinity at the time, was not sighted. From this time on the wind and sea increased, and by the following morning the storm was raging at full strength. In the bright sunshine the heavy seas were breaking completely over this submarine, which proved to be an excellent sea boat. Considerable water was shipped through the conning tower, while the commanding officer and watch officers were forced to wear life belts. The air intake for the Diesel engines had to be closed and the air for these motors drawn through the conning tower. This opening suddenly closed, while the engines continued to run, and the personnel below were in danger of being entirely deprived of air. Finally the chief engineer was able to open the air intake after efforts on the part of the captain to open the conning tower escape had failed, and the crew were saved from a serious situation. After the *U-75* had avoided three enemy submarines, which were in the vicinity of Horn Reef, the boat received the first news of the battle from one of the patrol vessels and stood in to Helgoland on June 3.

【The above detailed descriptions demonstrate most forcibly the limitations of submarine operations against combatant ships.】

Three days later the mine field which was laid by the *U-75* on May 29 to the westward of the Orkneys in the regular warship channel was to become effective. 【Noted in fig. 8.】 On June 5, Lord Kitchener with a staff of six officers arrived at Scapa to embark on the cruiser *Hampshire* for passage to Archangel. The mission of Lord Kitchener was the strengthening of the Russian resistance and admitted of no delay. On the eve of the field marshal's arrival a severe storm came up and prevented the usual sweeping operations in the channel which the *Hampshire* was to pass to the eastward of the Orkneys. It was, therefore, decided to route the *Hampshire* to the westward of the Orkney Islands close in to the coast where the vessel might have the protection of a destroyer escort, as the seas there were not so heavy. It appeared practically impossible that this route could have been strewn with mines by an enemy surface craft. The German submarine mine layers had heretofore restricted their activities to the area to the southward of the Firth of Forth, and it was, therefore, assumed that the radius of action of these vessels was too limited to permit more extensive operations and therefore no danger from this source was to be expected. The severe weather which prevailed at the time was the best possible protection against attacks from other submarines and this was also the reason why the passage on both sides of the Orkney Islands had not been swept for mines for the past four or five days.

In reaching this conclusion, however, it was overlooked that the fishing boat *Laurel Crown* had run on to a mine field and been sunk in this very zone on June 2. Thus the British commander in chief must have been aware of the existence of this mine field. The fact that in spite of this the dangerous route to the westward of the Orkneys was selected for the *Hampshire* can only be explained on the ground that the entire communication service was so overloaded with the reports covering the recent battle that the sinking of a small fishing vessel was not brought to the personal attention of the British commanders. The armored cruiser stood out to sea at 6.30 a. m., June 6, with Lord Kitchener on board and escorted by two destroyers. Conditions were made even worse by the fact that the wind hauled around to the NW. at 8 a. m., making it necessary to send the destroyers back to port as they could not maintain the speed of the cruiser against the heavy seas. A half an hour later the *Hampshire* struck a mine about 1.5 miles from shore between Brough of Birsay and Marwick Head and, as observed from ashore, sank in 15 minutes. In the heavy seas no boat could

be lowered by the damaged cruiser, the ship capsized, and only 12 men were saved by drifting ashore on a raft. The others, including Lord Kitchener and his staff, were drowned before assistance in the form of destroyers and patrol vessels could reach the spot. In the loss of Lord Kitchener England mourned the passing of a man who was a pillar of the strength and greatness of the Empire, and an emblem of the national unity, as testified by the obituary notices.

APPENDIX 5

ORGANIZATION OF THE GRAND FLEET ON MAY 30, 1916

BATTLE FLEET

Fleet flagship, Iron Duke

SECOND BATTLE SQUADRON

<i>First division</i>	<i>Second division</i>
King George V (flag).	Orion (flag).
Ajax.	Monarch.
Centurian.	Conqueror.
Erin.	Thunderer.

FOURTH BATTLE SQUADRON

<i>Third division</i>	<i>Fourth division</i>
Iron Duke (flag).	Benbow (flag).
Royal Oak.	Bellerophon.
Superb.	Temeraire.
Canada.	Vanguard.

FIRST BATTLE SQUADRON

<i>Fifth division</i>	<i>Sixth division</i>
Colossus (flag).	Marlborough (flag).
Collingwood.	Revenge.
Neptune.	Hercules.
St. Vincent.	Agincourt.

ATTACHED LIGHT CRUISERS AND DESTROYERS

Boadicea.	Active.
Blanche.	Oak.
Bellona.	Abdiel.

THIRD BATTLE CRUISER SQUADRON

Invincible (flag).
 Inflexible.
 Indomitable.
 Canterbury (attached light cruiser).
 Chester (attached light cruiser).

FIRST CRUISER SQUADRON

Defense (flag).
 Warrior.
 Duke of Edinburgh.
 Black Prince.

SECOND CRUISER SQUADRON

Minotaur (flag).
Hampshire.
Cochrane.
Shannon.

FOURTH LIGHT CRUISER SQUADRON

Calliope (flag).
Constance.
Caroline.
Royalist.
Comus.

DESTROYER FLOTILLAS

<i>Twelfth flotilla</i>	<i>Eleventh flotilla</i>	<i>Fourth flotilla</i>
Faulknor (flag).	Castor (flag).	Tipperary (flag).
Marksman.	Kempenfelt.	Brokeachates.
Obedient.	Ossory.	Porpoise.
Maenad.	Mystic.	Spitfire.
Opal.	Moon.	Unity.
Mary Rose.	Morning Star.	Garland.
Marvel.	Magic.	Ambuscade.
Menace.	Mousey.	Ardent.
Nessus.	Mandate.	Fortune.
Narwhal.	Marne.	Sparrowhawk.
Mindful.	Minion.	Contest.
Onslaught.	Manners.	Shark.
Munster.	Michael.	Acasta.
Nonsuch.	Mons.	Ophelia.
Noble.	Martial.	Christopher.
Mischief.	Milbrook.	Owl.
		Hardy.
		Midge.

BATTLE CRUISER FLEET

Flagship, Lion.

FIRST BATTLE CRUISER SQUADRON

Princess Royal (flag).
Queen Mary.
Tiger.

SECOND BATTLE CRUISER SQUADRON

New Zealand (flag).
Indefatigable.

FIFTH BATTLE SQUADRON

Barham (flag).
Valiant.
Warspite.
Malaya.

FIRST LIGHT CRUISER SQUADRON

Galatea (flag).
 Phaeton.
 Inconstant.
 Cordelia.

SECOND LIGHT CRUISER SQUADRON

Southampton (flag).
 Birmingham.
 Nottingham.
 Dublin.

THIRD LIGHT CRUISER SQUADRON

Falmouth (flag).
 Yarmouth.
 Birkenhead.
 Gloucester.

DESTROYER FLOTILLAS

First Flotilla

Fearless (flag).
 Acheron.
 Ariel.
 Attack.
 Hydra.
 Badger.
 Goshawk.
 Defender.
 Lizard.
 Lapwing.

Thirteenth Flotilla

Champion (flag).
 Nestor.
 Nomad.
 Narborough.
 Obdurate.
 Petard.
 Pelican.
 Nerissa.
 Onslow.
 Moresby.
 Nicator.

Ninth and Tenth Flotillas

Lydiard (flag).
 Liberty.
 Landrail.
 Laurel.
 Moorsom.
 Morris.
 Turbulent.
 Termagant.

AIRCRAFT TENDER

Engadine

APPENDIX 7

ORGANIZATION OF THE HIGH SEAS FLEETS ON MAY 31, 1916

THE MAIN BODY

Fleet flagship, Friedrich der Grosse

BATTLE SQUADRON III

<i>Fifth division</i>	<i>Sixth division</i>
König (flag).	Kaiser (flag).
Grosser Kurfurst.	Prinzregent Luitpold.
Markgraf.	Kaiserin.
Kronprinz.	

BATTLE SQUADRON I

<i>First division</i>	<i>Second division</i>
Ostfriesland (flag).	Posen (flag).
Thuringen.	Rheinland.
Helgoland.	Nassau.
Oldenburg.	Westfalen.

BATTLE SQUADRON II

<i>Third division</i>	<i>Fourth division</i>
Deutschland (flag).	Hannover.
Pommern.	Schleswig-Holstein.
Schlesien.	Hessen.

SCOUTING DIVISION IV

Stettin (flag).	Frauenlob.
Munchen.	Stuttgart.
Hamburg (flag of the leader of submarines)	

DESTROYER FLOTILLAS

Rostock (flag of the first leader of destroyers)

Destroyer Flotilla I

G-39 (leader)

<i>First Half Flotilla</i>	<i>Second Half Flotilla</i>
G-39 (leader).	_____
G-40.	_____
G-38.	_____
G-32.	_____

DESTROYER FLOTILLAS—continued

Destroyer Flotilla III

S-53 (leader)

<i>Fifth Half Flotilla</i>	<i>Sixth Half Flotilla</i>
V-71 (leader).	S-54 (leader).
V-73.	V-48.
G-88.	G-42.

Destroyer Flotilla V

G-11 (leader)

<i>Ninth Half Flotilla</i>	<i>Tenth Half Flotilla</i>
V-2 (leader).	G-8 (leader).
V-4.	G-7.
V-6.	V-5.
V-1.	G-9.
V-3.	G-10.

Destroyer Flotilla VII

S-24 (leader)

<i>Thirteenth Half Flotilla</i>	<i>Fourteenth Half Flotilla</i>
S-15 (leader).	S-19 (leader).
S-17.	S-23.
S-20.	V-89.
S-16.	_____
S-18.	_____

THE SCOUTING FORCES

SCOUTING DIVISION I

Lutzow (flag)

Derfflinger.	Moltke.
Seydlitz.	Von der Tann.

SCOUTING DIVISION II

Frankfurt (flag).	Elbing.
Pillau.	Wiesbaden.

DESTROYER FLOTILLAS

Regensburg (flag of second leader of destroyers)

Destroyer Flotilla II

B-98 (leader)

<i>Third Half Flotilla</i>	<i>Fourth Half Flotilla</i>
G-101 (leader).	B-109 (leader).
G-102.	B-110.
B-112.	B-111.
B-97.	G-103.
	G-104.

DESTROYER FLOTILLAS—continued

Destroyer Flotilla VI

✓ G-41 (leader)

<i>Eleventh Half Flotilla</i>	<i>Twelfth Half Flotilla</i>
V-44 (leader).	V-68 (leader).
G-87.	V-45.
G-86.	V-46.
	S-50.
	G-37.

Destroyer Flotilla IX

V-28 (leader)

<i>Seventeenth Half Flotilla</i>	<i>Eighteenth Half Flotilla</i>
V-27 (leader).	V-30 (leader).
V-26.	S-34.
S-36.	S-33.
S-51.	V-29.
S-52.	S-35.

SUBMARINES OF THE HIGH SEAS FLEET

Hamburg (flag of leader of submarines)

First Submarine Half Flotilla

V-159, UB-20, U-77, UB-28, U-74, U-71, U-72, UB-21, UB-22, UB-27. U-25

Second Submarine Half Flotilla

T-99, U-51, U-52, U-53

Third Submarine Half Flotilla

G-137, T-71, U-20, U-47, U-22, U-19, U-24, U-43, U-44, U-45, U-46, U-48

Fourth Submarine Half Flotilla

T-101, T-36, U-28, U-64, U-32, U-67, U-63, U-66, U-70, U-69

NAVAL AIRSHIP DETACHMENT

L-9, L-11, L-13, L-14, L-16, L-17, L-21, L-22, L-23, L-30

APPENDIX 9

Expenditure of ammunition by the German ships during the Battle off the Skagerrak

Ship	30.5 cm.	28 cm.	17 cm.	15 cm.	10.5 cm.; 8.8 cm.	Torpe- does	Remarks
Lutzow	380			400		2	Approximate.
Derfflinger	385			235		1	
Seydlitz		376		450			
Moltke		359		246		4	
Von der Tann		170		98			
König	167			137			
Grosser Kurfürst	135			216			
Markgraf	254			214			
Kronprinz	144						
Kaiser	224			41			
Prinzregent	169			106			
Kaiserin	160			135			
Friedrich der Grosse	72			151			
Ostfriesland	111			101			
Thuringen	107			115			
Helgoland	63			61			
Oldenburg	53			88			
Posen		53		64			
Rheinland		35		26			
Nassau		106		74			
Westfalen		51		176	106		
Deutschland		1			5		
Schlesien		9	20		6		
Hessen		5	34		24		
Schleswig-Holstein			20				
Hannover		8	21		44		
Elbing				230		1	
Pillau				113	4	1	
Frankfurt				379	2	2	
Rostock					500		
Regensburg					372		
Stettin					81		
München					159		
Stuttgart					64		
Hamburg					92		
Flotilla I					784	8	
Flotilla II					648	1	
Flotilla III					267	22	
Ninth Half Flotilla					239	1	
Flotilla VI					222	29	
Flotilla VII						5	
Flotilla IX					1,587	31	
Total	2,424	1,173	95	3,857	5,300	109	

¹ Includes total ammunition supply of boats which were sunk.

Total fired:	Shell
Main battery	3,597
Intermediate	3,952
Secondary	5,300

The main battery made 120 hits, equal to 3.33 per cent.

The intermediate and secondary batteries made 107 hits.

NOTE.—According to the British reports of ammunition expenditure and the hits made the following is the result:

Total fired by British ships, 4,598 main battery shells, which included 1,239 38.1-cm shells.

These made 100 hits, equal to 2.17 per cent.

APPENDIX 11

Hits received by German ships

Ships	Heavy projec- tiles	Medium and light projec- tiles	Date when repairs were com- pleted	Remarks	
Battleships:					
König.....	10	-----	July 21	Mine bit.	
Grosser Kurfurst.....	8	-----	July 16		
Markgraf.....	5	-----	July 20		
Kaiser.....	2	-----			
Ostfriesland.....	-----	-----	July 26		
Helgoland.....	1	-----	June 16		
Oldenburg.....	-----	1			
Nassau.....	-----	2	July 10		
Rheinland.....	-----	1	June 10		
Westfalen.....	-----	1	June 17		
Schleswig-Holstein.....	1	-----	June 24	Torpedo hit.	
Pommern.....	1	-----	(1)		
Battle cruisers:					
Lutzow.....	24	-----	(1)		
Derfflinger.....	17	9	Oct. 15		Do.
Seydlitz.....	21	2	Sept. 16		
Moltke.....	4	-----	July 30		
Von der Tann.....	4	-----	Aug. 2		
Light cruisers:					
Frankfurt.....	-----	3	July 8		Do.
Elbing.....	-----	1	(1)		
Pillau.....	1	-----	July 17		
Wiesbaden.....	-----	-----	(1)		
Rostock.....	-----	-----	(1)		
Stettin.....	-----	2	July 20		
München.....	-----	5	June 29	Do.	
Frauenlob.....	-----	-----	(1)		
Hamburg.....	-----	4	June 15		
Destroyers:					
S-50.....	-----	1	-----	Do.	
B-98.....	-----	1	June 20		
G-40.....	-----	1	June 15		
S-32.....	-----	3	July 31		
S-51.....	-----	1	June 19		
V-27.....	-----	2	(1)		
V-29.....	1	-----	(1)		
S-35.....	-----	-----	(1)		
G-41.....	-----	1	-----		
V-28.....	-----	1	June 13		
V-48.....	-----	-----	(1)		
Total.....	100	42			

¹ Sunk.

[The heavy hit against V-29 must be meant for S-35.]

APPENDIX 12

German guns put out of action

Ship	Main battery	Secondary battery
Derfflinger.....	4	2
Seydlitz.....	4	2
Moltke.....		2
Von der Tann.....	2	
König.....		2
Grosser Kurfurst.....		1
Markgraf.....		1
Schleswig-Holstein.....		1
Total.....	10	11

APPENDIX 14

German personnel losses in the Battle off the Skagerrak

Types of ships and names	Killed or drowned	Wounded	Total	Strength of crew on May 31	Percent- age of losses
Battleships:					
Ostfriesland.....	1	10	11	1,390	0.79
Oldenburg.....	8	14	22	1,284	1.71
Rheinland.....	10	20	30	1,128	2.66
Nassau.....	11	16	27	1,139	2.37
Westfalen.....	2	8	10	1,124	.89
Pommern.....	844		844	(1)	
Schlesien.....	1		1	828	.24
Schleswig-Holstein.....	3	9	12	865	1.39
König.....	45	27	72	1,315	5.47
Grosser Kurfurst.....	15	10	25	1,284	1.95
Markgraf.....	11	13	24	1,286	1.87
Kaiser.....		1	1	1,249	.08
Prinzregent Luitpold.....		11	11	1,278	.86
Battle cruisers:					
Lutzow.....	115	50	165	(1)	
Derfflinger.....	157	26	183	1,391	13.16
Seydlitz.....	98	55	153	1,425	10.74
Moltke.....	17	23	40	1,355	2.95
Von der Tann.....	11	35	46	1,174	3.92
Light cruisers:					
Pillau.....	4	19	23	492	4.67
Elbing.....	4	12	16	(1)	
Frankfurt.....	3	18	21	562	3.74
Wiesbaden.....	589		589	(1)	
Rostock.....	14	6	20	(1)	
Stettin.....	8	28	36	400	9.00
München.....	8	20	28	365	7.67
Frauenlob.....	320	1	321	(1)	
Hamburg.....	14	25	39	326	11.96
Destroyers:					
G-40.....	1	2	3		
S-32.....	3	1	4		
B-98.....	2	11	13		
V-48.....	90		90	(1)	
V-4.....	18	4	22	(1)	
G-87.....	1	5	6		
G-86.....	1	7	8		
G-41.....		5	5		
Total.....	2,429	492	2,921		

¹ Sunk.

APPENDIX 17

Summary of the most important radio messages and signals during the Battle off the Skagerrak

[All times given are summer central European times. In dates, V means May and VI June. Thus 31 V is 31 May. Signals of special interest are marked *]

From—	To—	Time group	Time received	Contents
May 30				
Brügge.....	All submarines.....			Prepare for enemy forces standing out 31 V and 1 VI.
Commander in chief.....	Fleet.....	1048.....		Complete concentration in outer roads before 8 p. m. at latest.
Commander scouting forces.....	Patrol boats.....	1137.....		30 V and 31 V search for submarines.
Do.....	Airplanes.....	do.....		31 V search for submarines west of Helgoland, Amrum Bank, and List.
Do.....	Mine Sweeper Division I.....	1231.....		Sweep passage west of Helgoland and Amrum Bank 30 V. On 31 V search for submarines in that area at dawn.
Commander in chief.....	Fleet.....	1640.....		"31 Gg. 2,490."
Do.....	do.....	1841.....		Van of Squadron III will pass war lightship A of the Jade at 4.30 a. m. Squadron II commence taking part in the operation following Squadron I. Radio guard in German Bight at entrance III.
Helgoland Air Station.....	Commander in chief.....	1650.....	4.59 p. m.....	Air reconnaissance impossible for present, account weather conditions.
*Arcona.....	Ostfriesland.....	2002.....		Leader of submarines, High Seas Fleet: U-46 in 150y near Terschelling lightship has sighted enemy submarines 6 times. Fired on once with torpedo and once with gunfire. Impossible to cruise on surface in this zone by daylight. Many floating mines in this area. U-46 ready for service in Southern North Sea after renewal of periscope. U-22 ready for service. Signed, Third Submarine Half Flotilla.
Nordholz.....	do.....	2105.....	9.12 p. m.....	To commander in chief: Propose air reconnaissance to-morrow morning. Signed, Naval Airship Detachment.
Arcona.....	do.....	2120.....	9.48 p. m.....	For leader of submarines: cruising between Terschelling Bank Lightship and 121y. Signed, U-67.
*Schillig.....	Commander in chief.....		10.20 p. m.....	For commander in chief and commander scouting forces: 1. Steamer report: May 27 about 6 hours after passing Spurn Point Lightship (on course Hull-Rotterdam) one squadron 8 large battleships, 12 destroyers course SW.; sighted in distance. 2. Report of a pilot returned from Helder: Had heard from an English captain that numerous cruisers and destroyers were between Hull and IJmuiden. No date. Signed, Naval Staff.
Do.....	do.....		10.45 p. m.....	Weather prediction for tomorrow changed. Northerly winds along coast low down, hauling around to east in morning. Up to 1,000 meters strength seldom over 5. Cloudy. Good visibility. NW. North Sea probably fresh SW. breezes. Prediction uncertain. Signed, Naval Air Weather Service.


*Summary of the most important radio messages and signals during the Battle
off the Skagerrak—Continued*

From—	To—	Time group	Time received	Contents
May 31				
*Nordholz.....	Entrance III....	0135....	1.40 a. m...	To commander in chief: Airship reconnaissance impossible for present owing to weather. Signed Naval Airship Detachment.
Schillig	Commander in chief.	.....	2.20 a. m...	To commander in chief: Steamer report. 29 V 6 p. m. 5 miles NE. Hansholm lightship one submarine nationality not known. Course toward Skagen.
Helgoland Island....	Entrance III....	0405....	4.06 a. m...	To fleet: Air reconnaissance impossible for the present owing to weather conditions. Signed Air station, Helgoland.
List.....	do.....	0415....	4.18 a. m...	To fleet: Air scouting not possible at present account unfavorable weather. Hold hospital ships in readiness at their anchorages.
Commander in chief.	Commander hospital ships.	.....	.....	To fleet: 2 capital ships, 2 cruisers, and several destroyers 099y III on southerly course. Signed U-32.
*Arcona.....	Entrance III....	0650....	6.37 a. m...	Main body will steer from square 100a VII toward 046e IV.
Commander in chief.	Screen	0652....	.....	To commander in chief: 2 large warships or groups with destroyer escort left Scapa Flow.
*Neumunster.....	Entrance III....	0700....	7.40 a. m...	From U-66 to commander in chief: 8 enemy capital ships, light cruisers, destroyers on northerly course in 132b III.
Arcona.....	do.....	0744....	7.48 a. m...	Scouting Division II, Flotillas II and IV scout on bearing NW. to NE. in this order: Elbing, Pillau, Frankfurt, Wiesbaden, Regensburg.
Commander Scout- ing Division II.	Scouting Divi- sion II, Flo- tillas II and IV.	Visual..	8.50 a. m...	Screen close at 5 p. m. to visual signal distance.
Commander in chief.	Screen	0950....	.....	U-72 sighted Wednesday evening 3 light cruisers, Cordelia class, 2 submarines near the Skagerrak course east, and on Thursday evening one light cruiser Calliope class in latitude of Utsire course W.
*Hamburg.....	Fleet.....	1035....	.....	To commander in chief: Air reconnaissance will be attempted. Signed Naval Airship Detachment.
Nordholz.....	Entrance III....	1115....	11.32 a. m...	To leader of submarines: Two enemy submarines in 138y on course N. sig. U-67.
Arcona.....	do.....	1150....	12.26 p. m...	To commander in chief: Have ascended; course WNW.
L-9.....	do.....	1225....	12.49 p. m...	To commander in chief: Weather report for Firth of Forth: Wind 1, rainy, misty. Barometer 767. (These reports only made when ship detachments are at sea.)
*Neumunster.....	do.....	1118....	12.55 p. m...	Course N.
Commander in chief.	Fleet.....	Visual..	12.53 p. m...	To commander in chief: Have ascended. Course W. by N.
L-16.....	Entrance III....	1230....	1.04 p. m...	To commander in chief: Ascended on course to 092e III for scouting.
L-21.....	do.....	1235....	1.10 p. m...	Ascended on course N. by W.
L-23.....	do.....	1300....	1.16 p. m...	Took off: Plane 559 radio wave 553, at 1.15 p. m. from List. Mission: Scout to westward. Landed: 2.11 p. m.
*Airstation List.....	Fleet flagship	1315....	1.19 p. m...	Result: Scouted over 159b. Returned account very low clouds. Visibility 1 to 2 miles.
Arcona.....	Entrance III....	1316....	1.20 p. m...	All ships. In message 0650 from the U-32 the group number should probably have been V and not III.
L-14.....	do.....	1330....	1.46 p. m...	To commander in chief: Ascended on course toward Horn Reef.
*L-23.....	do.....	1600....	2.17 p. m...	To commander in chief: Position 129b. Visibility ½ mile.
L-16.....	do.....	do.....	2.20 p. m...	To commander in chief: Position 64e. Very misty. Visibility 4 miles. Course WNW.

*Summary of the most important radio messages and signals during the Battle
off the Skagerrak—Continued*

From—	To—	Time group	Time received	Contents
May 31—Continued				
*L-21.....	Entrance III....	1600.....	3.20 p. m....	To commander in chief: 104b. Visibility 6 miles, wind W. by N. 3, clouds about 300 meters.
*Elbing.....	Commander in chief.	1531.....	3.27 p. m....	Enemy armored cruiser in sight W. by N.
Lutzow.....	Scouting Division I.	Visual.....	do.....	Turn together to port to WSW.
*B-109.....	Regensburg.....	1525.....	3.28 p. m....	To second leader of destroyers: 164y IV, scattered enemy vessels. Signed, Commander Fourth Half Flotilla.
Lutzow.....	Scouting Division I.	Visual.....	3.29 p. m....	Speed 18 knots.
Do.....	do.....	do.....	3.30 p. m....	Follow the leader.
Frankfurt.....	Regensburg, Wiesbaden.	do.....	do.....	Close this ship.
Lutzow.....	Scouting Division I.	Visual.....	3.32 p. m....	Speed 21 knots.
B-109.....	Regensburg.....	do.....	do.....	To second leader of destroyers: Reported enemy forces steering east. Signed, Fourth Half Flotilla.
Elbing.....	Commander in chief.	1534.....	3.33 p. m....	Am under fire.
Lutzow.....	Scouting Division I.	Visual.....	3.34 p. m....	Clear ship for action.
*Do.....	Commander in chief.	1527.....	3.35 p. m....	Smoke of several enemy craft in sight in 164y. Signed, Commander scouting forces.
Do.....	Scouting Division I.	Visual.....	3.36 p. m....	Full speed.
*B-109.....	Regensburg.....	1535.....	3.38 p. m....	Recognition signal of the enemy is "P. L." Signed Fourth Half Flotilla.
*Lutzow.....	Commander in chief.	1536.....	3.43 p. m....	Scouting Division I is in 031e, course SSW.
L-9.....	Entrance III....	1540.....	do.....	To commander in chief: Position 020b. Visibility 2 miles; course NW. by W.
Lutzow.....	Scouting Division I.	Visual.....	do.....	Turn together to starboard to course WSW.
Do.....	do.....	do.....	3.44 p. m....	Speed 18 knots.
Do.....	do.....	do.....	3.47 p. m....	Turn together to starboard course W.
Do.....	do.....	do.....	3.50 p. m....	Battle signals follow. Man battle signal stations.
Do.....	do.....	do.....	3.49 p. m....	Speed 21 knots.
Do.....	do.....	do.....	3.52 p. m....	Turn together to course NNW.
Commander in chief.	Commander scouting forces.	1548.....	3.55 p. m....	Own main body at 3.45 p. m. in 065e, IV.
Frankfurt.....	Commander in chief.	1550.....	3.55 p. m....	047d not armored cruisers, but 4 light cruisers Calliope class on course NW. Signed, Commander Scouting Division II.
Lutzow.....	Scouting Division I.	Visual.....	3.57 p. m....	Follow in order of tactical numbers.
Elbing.....	Lutzow.....	1526.....	3.59 p. m....	4 enemy cruisers Arethusa class in sight.
Lutzow.....	Scouting Division I.	Visual.....	3.59 p. m....	Course NNW.
Do.....	do.....	do.....	4 p. m....	Speed 23 knots.
Commander in chief.	Battle Squadrons I and II.	1704.....	do.....	Close up.
Do.....	Fleet.....	1706.....	do.....	Clear ships for action. Full speed, course N.
*Elbing.....	do.....	Visual.....	4.12 p. m....	4 modern enemy cruisers in sight to the westward, fifth and sixth coming in sight, distant 16,300 meters.
Lutzow.....	Scouting Division I.	do.....	4.15 p. m....	Course NW.
*Do.....	Commander in chief.	1650.....	do.....	Only 4 enemy light cruisers in sight. Position Scouting Division I, 022e course NNW.
Do.....	Scouting Division I.	Visual.....	do.....	Speed 25 knots.
Elbing.....	Fleet flagship.....	1615.....	do.....	To commander in chief: Scattered enemy forces in 152y IV.
Do.....	Commander in chief.	1612.....	4.15 p. m....	Reported enemy forces steering NNW. 152y IV.
*List.....	do.....	1600.....	4.21 p. m....	Radio airplane 561 taking off on course NNW. Signed, List Air Station.

*Summary of the most important radio messages and signals during the Battle
off the Skagerrak—Continued*

From—	To—	Time group	Time received	Contents
May 31—Continued				
Frankfurt.....	Commander in chief.	1614....	4.24 p. m...	Have opened fire on enemy light cruis- ers.
Lutzow.....	Scouting Divi- sion I.	Visual....	do.....	Speed 18 knots.
Friedrich der Grosse Lutzow.....	Fleet..... Scouting Divi- sion I.	Visual....	4.26 p. m... do.....	Distance 700 meters.  3.26 Course NW. by N.
*L-9.....	Entrance III...	1550....	do.....	To commander in chief: Position 005b. Have turned about; starboard pro- peller shaft broken.
*Lutzow.....	All.....	1629....	do.....	Scouting Division II close Scouting Division I. Strong enemy forces in sight in 151y.
*Do.....	Scouting Divi- sion I.	Visual....	4.29 p. m...	Fire distribution from the right.
Do.....	do.....	do.....	4.32 p. m...	Speed 18 knots.
Do.....	do.....	do.....	4.35 p. m...	Course SE.
*Do.....	All.....	1629; vis- ual	do.....	Enemy main body in sight in 151y. This force consists of 6 ships on course N.
Frankfurt.....	Fleet.....		4.37 p. m...	Scattered enemy craft 159y. Follow as quickly as possible. Signed, Com- mander Scouting Division II.
Lutzow.....	Scouting Divi- sion I.	Visual....	4.39 p. m...	Fire distribution from the left.
*Do.....	do.....	do.....	4.40 p. m...	Speed 18 knots.
*Frankfurt.....	Lutzow.....	1633....	do.....	Enemy airplane in 159y. Commander Scouting Division II.
Friedrich der Grosse.....	All.....	Visual....	do.....	Full speed.
*Frankfurt.....	Commander in chief.	1628....	4.41 p. m...	The enemy light cruisers have turned off. Have ceased firing.
*Lutzow.....	Scouting Divi- sion I.	Visual....	4.42 p. m...	Ships take distance 500 meters.
Do.....	do.....	do.....	4.45 p. m...	Change course together to SSE.
*Do.....	Scouting Divi- sion I.	do.....	4.48 p. m...	Commence firing.
Do.....	All.....	1632....	4.49 p. m...	Scouting Division I. Position 004e, SE. Speed is 21 knots.
Do.....	Scouting Divi- sion I.	Visual....	4.35 p. m...	Increase speed.
Do.....	do.....	do.....	4.54 p. m...	Leading ship is guide.
*Do.....	All.....	1648....	do.....	6 enemy battle cruisers, light enemy forces in 151y, course SE. Scouting Division I in 004e, course SSE, 18 knots. Am engaged in battle with 6 battle cruisers. Report position own main body. Signed, Commander scouting forces.
Do.....	Scouting Divi- sion I.	Visual....	5 p. m.....	Change course together to SE. by S.
Second leader of des- troyers.	Flotilla IX.....	do.....	5.03 p. m...	Interval 15,500 meters.
Lutzow.....	Scouting Divi- sion I.	do.....	5.04 p. m...	Change course together to S. by E.
Commander in Chief.	All.....		5.05 p. m...	Course NW.
Do.....	Fleet; comman- der scouting forces.	1709....	do.....	Own main body position 5 p. m. 043e center, course NW., speed 15 knots.
Lutzow.....	Scouting Divi- sion I.	Visual....	5.07 p. m...	Change course together to S. by W.
Friedrich der Grosse.....	All.....	do.....	5.11 p. m...	Ships take distance 500 meters.
Lutzow.....	Scouting Divi- sion I.	do.....	5.12 p. m...	Speed 23 knots.
Do.....	do.....	do.....	5.14 p. m...	Destroyers attack.
Do.....	do.....	do.....	5.18 p. m...	Leading ship take guide.
Commander in chief.	All.....	do.....	5.20 p. m...	Course West.
*Do.....	Rostock.....	1721....	do.....	First leader of destroyers: Concentrate main body destroyers.
*Frankfurt.....	Lutzow.....	1712....	do.....	Enemy main body 151y, English Second Battle Squadron, 5 ships. Reported enemy force steering SE.
Frederick der Grosse. Lutzow.....	All..... Scouting Divi- sion I.	Visual.... do.....	5.21 p. m... 5.25 p. m...	Course N. Reduce speed.
Second leader of des- troyers.	Flotilla IX.....	do.....	5.26 p. m...	Distance 10,000 meters. Flotilla IX at- tack.

*Summary of the most important radio messages and signals during the Battle
off the Skagerrak—Continued*

From—	To—	Time group	Time received	Contents
May 31—Continued				
V-29.....	Flotilla IX.....	Visual...	5.26 p. m...	Attack.
Lutzow.....	Scouting Divi- sion I.....	do.....	5.27 p. m...	Turn together to SE.
*Stettin.....	Fleet.....	do.....	5.28 p. m...	Gunfire to NNW. ½ W., distant about 4 miles.
*Commander in chief..	Lutzow.....	1731.....	5.30 p. m...	To commander scouting forces: Own main body 034e, course N. Speed, 15 knots.
Lutzow.....	Scouting Divi- sion I.....	Visual...	5.34 p. m...	Change course together to ESE.
Frederich der Grosse..	All flotillas.....	do.....	5.35 p. m...	Take station to starboard.
Do.....	All.....	do.....	5.36 p. m...	Increase speed.
Lutzow.....	Scouting Divi- sion I.....	do.....	do.....	Change course to E.
Stettin.....	Frederich der Grosse.....	do.....	do.....	Scouting Division II in sight NNW. ¼ W.
Lutzow.....	Scouting Divi- sion I.....	do.....	5.38 p. m...	Change course together to SSE.
L-14.....	Entrance III.....	1715.....	5.40 p. m...	To commander in chief. Position 140a- VII, on course to 151y IV, visibility 3 miles.
Lutzow.....	Scouting Divi- sion I.....	Visual...	5.41 p. m...	Change course together to SSW.
Frederich der Grosse..	Fleet.....	do.....	5.42 p. m...	Divisions change course together 2 points to port.
*Lutzow.....	Scouting Divi- sion I.....	do.....	5.44 p. m...	Scouting Division I: Open fire on enemy battleships.
*Frederich der Grosse	All.....	do.....	5.45 p. m...	Fire distribution from right, ship against ship.
*Do.....	do.....	do.....	5.46 p. m...	Commence firing.
Lutzow.....	Scouting Divi- sion I.....	do.....	do.....	Change course together to SE.
Do.....	do.....	do.....	5.49 p. m...	ading ship take guide.
Do.....	do.....	do.....	5.51 p. m...	Course N.
Frederich der Grosse..	Fleet.....	do.....	do.....	Operate against rear of enemy column.
Do.....	do.....	do.....	5.53 p. m...	Annul last Signal.
Do.....	do.....	do.....	5.54 p. m...	Increase speed.
Lutzow.....	Scouting Divi- sion I.....	do.....	5.55 p. m...	Course N.
*Do.....	do.....	do.....	5.57 p. m...	Fire distribution from right, ship against ship.
Commander in chief..	All.....	do.....	5.58 p. m...	Divisions change course together 2 points to port. Course NW; maximum speed.
Lutzow.....	Scouting Divi- sion I.....	Visual...	6.02 p. m...	All battle cruisers reduce speed.
Commander in chief..	All.....	do.....	6.05 p. m...	Divisions change course together 2 points to starboard. Course NW.
Lutzow.....	Scouting Divi- sion I.....	Visual...	6.06 p. m...	All battle cruisers increase speed.
Do.....	do.....	do.....	6.10 p. m...	Battle cruisers change course together to N. by w.
Commander scouting forces.	Second leader of destroyers.	do.....	do.....	Please concentrate destroyers on star- board bow.
*Frankfort.....	Commander in chief.	1737.....	do.....	All ships. Van of enemy battle cruisers 006e right upper. Only four ships strong. Reported enemy vessels steering SE. Signed, Commander Scouting Division II.
Lutzow.....	Scouting Divi- sion I.....	Visual...	6.13 p. m...	All battle cruisers change course together to NNW.
Commander in chief..	All.....	do.....	6.15 p. m...	Divisions change course together 2 points to port.
Lutzow.....	Scouting Divi- sion I.....	Visual...	6.17 p. m...	Battle cruisers reduce speed.
*Commander in chief..	Lutzow.....	1821.....	6.19 p. m...	Commander scouting forces: Take up pursuit of enemy.
Lutzow.....	Scouting Divi- sion I.....	Visual...	6.23 p. m...	Battle cruisers increase speed.
Commander in chief..	All.....	do.....	6.25 p. m...	Increase speed.
Lutzow.....	Scouting Divi- sion I.....	Visual...	6.26 p. m...	Battle cruisers change course together to NW.
L-14.....	Entrance III.....	1810.....	6.27 p. m...	To commander in chief: Position 091eIV. Course N. by E.
Friedrich de Grosse..	All.....	Visual...	6.30 p. m...	Divisions change course together 2 points to starboard.

*Summary of the most important radio messages and signals during the Battle
off the Skagerrak—Continued*

From—	To—	Time group	Time received	Contents
May 31—Continued				
Lutzow	Scouting Division I.	Visual	6.39 p. m.	Battle cruisers. Leading ship take guide.
L-21	Commander in chief.	1830	6.40 p. m.	4068y. Visibility 6 miles.
*Lutzow	Moltke	Visual	.....do.....	Shift main battery to battleships.
Commander in chief	All		6.44 p. m.	Leading ship take guide. Divisions change course together to N.
Lutzow	Scouting Division I.	Visual	.....do.....	Battle cruisers change course together to NNE.
Do	do	do	6.50 p. m.	Battle cruisers change course together to N.
Commander in chief	All	do	6.51 p. m.	Reduce speed.
Lutzow	Scouting Division I.	do	6.53 p. m.	Battle cruisers. Leading ship take guide.
Do	do	do	6.55 p. m.	Battle cruisers change course together to E.
Commander in chief	All	do	.....do.....	Increase speed.
Wiesbaden	Twelfth Half Flotilla.		6.58 p. m.	Turn away. Full speed.
*Lutzow	Scouting Division I.	Visual	.....do.....	Destroyers attack.
Do	do	do	6.59 p. m.	Change course together to starboard to column on reverse course.
Do	do	do	7 p. m.	Reduce speed.
*Frankfurt	Lutzow .....		.....do.....	Am under fire from enemy battleships.
*Wiesbaden	Commander Scouting Division II.		7.01 p. m.	Both engines broken down. Unable to maneuver.
Second leader of destroyers.	Flotillas II, VI, IX.		7.02 p. m.	Dead ahead of leading ship (i. e., take position).
*Frankfurt	Derfflinger	1701	.....do.....	To commander scouting forces and commander in chief. Am under fire of enemy battleships. Signed, Commander Scouting Division II.
*Do	Commander in chief.	1906	7.10 p. m.	Enemy battleships in 025e. Signed, Commander Scouting Division II.
Do	do	1921	.....do.....	Wiesbaden disabled. 024e.
*Lutzow	Scouting Division I.	Visual	.....do.....	Turn together to starboard to column on reverse course.
*Commander Scouting Division II.	Regensburg		7.14 p. m.	Send destroyer to Wiesbaden. Take her in tow.
Do	Lutzow		7.15 p. m.	Wiesbaden disabled on starboard bow.
König	Squadron III		7.17 p. m.	Change course together 2 points to port.
Commander in chief	All		7.18 p. m.	Do.
Lutzow	Scouting Division I.	Visual	7.20 p. m.	Change course together to SE.
*Derfflinger	Commander in chief.	1850	.....do.....	Scouting Division I is turning off, as no observations possible on account of sun.
Commander in chief	Fleet		7.21 p. m.	Leading ship take guide.
Leader Flotilla V	Commander in chief.	1730	7.25 p. m.	According to reports of prisoners from destroyer Nomad, 60 large ships in vicinity, including 20 new battleships and 6 battle cruisers.
Second leader of destroyers.	Flotilla II	Visual	7.27 p. m.	Follow the leader.
Commander Scouting Division I.	do	do	.....do.....	Make room.
Friedrich der Grosse	All	do	7.28 p. m.	Maneuver with changes of course together.
Rostock	Flotilla III	do	7.32 p. m.	Concentrate in proper order for attack.
*Commander in chief	Fleet	do	7.36 p. m.	Turn together to starboard to reverse course (ships right about).
*Rostock	Flotilla III	do	7.37 p. m.	Attack. Toward port bow.
*Leader Flotilla III	do	do		Fire on turning to starboard, 3 torpedoes each.
*Rostock	Flotilla III, First Half Flotilla.	do	7.39 or 7.42 p. m.	Destroyers will not attack.
Commander in chief	All	do	7.39 p. m.	Course W.
*Rostock	First Half Flotilla.	do	7.40 p. m.	Destroyers will not attack.
Moltke	Commander in chief.		7.45 p. m.	Enemy van bears E. by S.
L-23	do	1930	7.47 p. m.	7.30 p. m. 4163b, course SSW.
Deutschland	Squadron II	Visual	7.50 p. m.	Turn together 2 points to starboard.
*Second leader of destroyers.	Flotilla VI	do	7.52 p. m.	Destroyers attack.

*Summary of the most important radio messages and signals during the Battle
off the Skagerrak—Continued*

From—	To—	Time group	Time received	Contents
May 31—Continued				
Second leader of de- stroyers.	Flotilla IX-----	Visual--	7.54 p. m--	Destroyers attack.
*Commander in chief.	All-----	-----	7.55 p. m--	Turn together to starboard to reverse course. (Ships right about.)
Rostock-----	First and Twelfth Half Flotillas.	-----	-----do-----	Boats proceed to Lutzow and take off commander scouting forces.
*Lutzow-----	Moltke-----	Visual--	8 p. m-----	Lutzow can proceed only at half speed. (Repeated to commander in chief by radio.)
*Commander in chief.	First leader of destroyers.	-----do-----	-----do-----	Take off crew of Wiesbaden.
Lutzow-----	Moltke-----	-----do-----	-----do-----	To Seydlitz; Commander scouting forces will transfer flag to the Seyd litz.
*Rostock-----	Flotilla III-----	-----do-----	-----do-----	Proceed to Wiesbaden; save crew.
Commander in chief.	Fleet-----	-----do-----	8.02 p. m--	Reduce speed.
Rostock-----	Flotilla III-----	-----do-----	8.03 p. m--	3 boats to the Wiesbaden; rescue the crew. Bearing NE.
*S-53-----	V-71-----	-----do-----	-----do-----	Proceed with your 3 boats to the Wels- baden to rescue the crew.
Rostock-----	S-53-----	-----do-----	-----do-----	Flotilla III, advance quicker.
Derfflinger-----	Scouting Divi- sion I.	-----do-----	8.05 p. m--	All battle cruisers follow the leader.
*Rostock-----	Friedrich der Grosse.	-----do-----	-----do-----	Markgraf has port engine disabled, and can not maintain station. Signed Markgraf.
Commander in chief.	Rostock-----	Visual--	-----do-----	Send assistance to Wiesbaden.
Derfflinger-----	Scouting Divi- sion I.	-----do-----	8.10 p. m--	Increase speed.
*Commander in chief.	Fleet-----	-----do-----	8.13 p. m--	Battle cruisers turn together at the enemy. Attack.
*Derfflinger-----	Scouting Divi- sion I.	Visual--	8.14 p. m--	Turn together at the enemy.
*Commander in chief.	Fleet-----	-----do-----	8.15 p. m--	Battle cruisers operate against enemy van.
*Derfflinger-----	Scouting Divi- sion I.	-----do-----	-----do-----	Operate against enemy van.
Do-----	do-----	-----do-----	-----do-----	Speed 23 knots.
L-14-----	Commander in chief.	2000-----	-----do-----	Position 4051e. Visibility 2 miles, course NW.
*Elbing-----	Commander Scouting Divi- sion II.	-----do-----	-----do-----	One condenser leaking. Can not make high speed.
*Commander in chief.	Fleet-----	-----do-----	8.18 p. m--	Turn together to starboard to reverse course. (Ships right about.)
Deutschland-----	Squadron II-----	Visual--	8.20 p. m--	Course NW.
Commander in chief.	Fleet-----	-----do-----	-----do-----	Increase speed.
*Do-----	do-----	Visual--	8.21 p. m--	Destroyers attack.
*Rostock-----	All flotillas-----	-----do-----	-----do-----	Concentrate in proper order for torpedo attack.
Commander in chief.	Fleet-----	-----do-----	8.22 p. m--	Course W.
*Rostock-----	All flotillas-----	Visual--	8.23 p. m--	Advance for attack. At the enemy.
Deutschland-----	Squadron II-----	-----do-----	8.25 p. m--	Course W.
Commander in chief.	Fleet-----	-----do-----	8.27 p. m--	Course SW., speed 17 knots.
L-21-----	Entrance III-----	-----do-----	8.28 p. m--	Commander in chief: 036dVII, course S., visibility 2 miles; very misty.
*V-30-----	Second leader of destroyers.	Visual--	8.32 p. m--	Strong enemy ships to SE.
Frankfurt-----	Commander in chief.	2022-----	8.42 p. m--	Lutzow under fire from strong enemy forces to NE. Signed, Commander Scouting Division II.
Frederich de Grosse--	Fleet-----	Visual--	8.45 p. m--	Course S.
*Leader Flotilla II--	Second leader of destroyers.	2040-----	8.48 p. m--	To commander in chief, and commander scouting forces: Reported enemy force steering ESE. Enemy force com- prises more than 20 ships.
Frederich de Grosse--	Fleet-----	-----do-----	8.52 p. m--	Course S.
*Commander in chief.	First and second leaders of de- stroyers.	-----do-----	9 p. m-----	All flotillas attack.
*Brugge-----	Commander in chief.	2011-----	-----do-----	Intercepted English radio, warship "bt" to "ak," "jv": "Cruisers bear- ing south, 5 miles."
G-39-----	Moltke-----	Visual--	-----do-----	Is your radio in working order? Signed, Commander scouting forces.

*Summary of the most important radio messages and signals during the Battle
off the Skagerrak—Continued*

From—	To—	Time group	Time received	Contents
May 31—Continued				
Moltke----- Lutzow-----	G-39----- Seydlitz-----	Visual--	9 p. m.----- 9.01 p. m.---	Only auxiliary (Z) station in order. Enemy bearing SSE.; is passing ahead of Lutzow to port; 6 battle cruisers.
Commander Scouting Division II. Second leader of de- stroyers. *Seydlitz-----	Regensburg----- Flotilla II----- Commander in chief.	Visual-- 2050-----	9.05 p. m.---	Enemy bearing SSE.; passing to port ahead of Lutzow; 6 battle cruisers. Enemy bearing SSE.; is passing to port ahead of Lutzow; 6 battle cruisers. Derfflinger has only two guns ready for action.
*Do-----	-----	-----	-----	Port engine of Markgraf disabled. Signed Markgraf.
*Second leader of de- stroyers.	Flotilla II-----	-----	9.08 p. m.---	Flotilla II will be dispatched for search and night attack against enemy battle fleet at 9.45. Enemy assumed to be in sector E. to NE. Initial point for 9.30 will follow. Return of flotilla around Skagen to Kiel authorized if route to German Bight not found advisable. To the southward of you other flotillas will operate. I will radio my 1 a. m. position.
*Hamburg-----	Arcona-----	2050-----	9.10 p. m.---	Third Half Flotilla, U-53, U-67. All available submarines and U-67 ad- vance immediately to north. Report 6 a. m. position. Leader of submarines. The sector ordered for search operations changed to ENE. to ESE.
Second leader of de- stroyers. Commander in chief--	Flotilla II----- First and second leaders of de- stroyers.	2112-----	9.15 p. m.---	All flotillas attack at night under first leader of destroyers.
Second leader of de- stroyers.	Flotilla II and Twelfth Half Flotilla.	-----	do-----	Flotilla II and Twelfth Half Flotilla pro- ceed on duty assigned.
Do-----	Flotilla VI and Twelfth Half Flotilla.	-----	do-----	At 9.45 proceed against the enemy in sector ESE. to SE. Position at 9.30 p. m. 161y.
Frankfurt-----	Commander in chief.	2119-----	9.19 p. m.---	162y right center. Two ships of Chat- bam class. 008e enemy armored cruisers on course SW. Signed, Com- mander Scouting Division II.
Stettin-----	do-----	2121-----	9.21 p. m.---	4 enemy light cruisers in 007e. Signed, Commander Scouting Division IV.
-----	Note-----	-----	9.25 p. m.---	Commander Battle Squadron II tries to get Scouting Division IV to take position ahead of the main body.
Regensburg-----	Commander in chief; first leader of de- stroyers.	2126-----	9.30 p. m.---	From 161y, at 9.30 p. m. Flotilla II advanced in sector ENE. to ESE. Twelfth Half Flotilla ESE. to SE. Flotillas dispatched before 2112. Signed Second Leader of Destroyers.
*Rostock-----	Commander in chief.	2131-----	9.35 p. m.---	Second Leader of Destroyers will order dispositions of boats under his com- mand. Signed, First leader of de- stroyers.
Commander in chief. L-14-----	Fleet----- Commander in chief.	2100-----	9.36 p. m.---	Course S.
S-53-----	Regensburg-----	-----	9.41 p. m.---	Position 4023e; course SSE.; visibility 1 mile.
Regensburg-----	Flotilla III-----	-----	9.45 p. m.---	5 boats of Flotilla III assembled. Re- quest orders and position.
Commander in chief. Rostock-----	Fleet----- Commander in chief.	2150-----	9.52 p. m.---	Remain here. Course S.
Commander in chief. G-39-----	Von der Tann--- Moltke-----	P. D. L. Visual--	10. p. m.---	Flotilla III report position. Signed, First leader of destroyers.
*Moltke-----	G-39-----	do-----	do-----	Close battle cruisers. Report condition of armament. Signed, Commander scouting forces.
*Rostock-----	Commander in chief.	2156-----	10.02 p. m.---	Main battery in readiness for action. Also greater part secondary battery. Z station and WWO clear. 300 tons water in the ship.
*Commander in chief.	Naval Airship Detachment.	2206-----	-----	Flotillas V and VII. Flotilla VII advance from 165y sector SE. to SbyE. Flotilla V sector SbyE. to SSW. Signed First leader of destroyers.
				Early air reconnaissance near Horn Reef very essential.

*Summary of the most important radio messages and signals during the Battle
off the Skagerrak—Continued*

From—	To—	Time group	Time received	Contents
May 31—Continued				
*Regensburg-----	Commander in chief.	2203-----	10.08 p. m.	Flotillas II and VI, 10 p. m. position of rear ship own main body 165y lower, course south.
Rostock-----	do-----	2158-----	10.09 p. m.	First leader of destroyers. Refer to 2150; 5 boats 165y near second leader of destroyers. Signed, Flo- tilla III.
*Commander in chief.	Fleet-----	2214-----	10.10 p. m.	Course of main body SSE. $\frac{1}{4}$ E. Main- tain this course. Speed, 16 knots. Battle cruisers rear of column. Squad- ron II rear of battle fleet.
König-----	Commander in chief.	2205-----	10.15 p. m.	Lutzow in 007e has been lost to view. Course S., slow speed. Commander Battle Squadron III.
*Commander in chief.	Fleet-----	2229-----		Squadron II, behind Squadron III. Battle cruisers in rear. Scouting Division II ahead, Scouting Division IV to starboard.
Hannover-----	Commander in chief.	2217-----	10.30 p. m.	Enemy in sight ahead, 4 ships, 166y. Signed, Rear Admiral of Battle Squadron II.
G-39-----	Moltke-----	Visual-----	do-----	Please sheer out to port and stop. Signed, Commander scouting forces.
Rostock-----	Commander in chief.	2239-----	10.40 p. m.	To Eighteenth Half Flotilla: Refer to 2217. Attack enemy. Signed, First leader of destroyers.
Commander in chief.	Fleet-----	2246-----	10.45 p. m.	Own main body course SSE. $\frac{1}{4}$ E.
B-98-----	Rostock-----	2150-----	10.48 p. m.	To all ships: 020e, 5 enemy light cruis- ers, numerous destroyers. Am being forced off; am steering NW. Signed, Flotilla II.
	Note-----		10.50 p. m.	Battle Squadron II turned together to reverse course to port and with a second change to port closed the rear of the column after König.
G-39-----	Moltke-----	Visual-----	do-----	Commander scouting forces will shift flag to the Moltke.
Moltke-----	G-39-----	do-----	10.55 p. m.	Moltke is stopped.
Rostock-----	Commander in chief.	2248-----	do-----	To Eighteenth Half Flotilla: Refer to 2239: Sector SSW. to SW. First leader of destroyers.
Frankfurt-----	do-----	2258-----	do-----	5 enemy cruisers on course ENE. in 017e. Signed, Commander Scouting Divi- sion II.
G-40-----	Rostock-----	2250-----	11.12 p. m.	To fleet, König and Lutzow: At 10.30 p. m. with 4 boats in 018e center, course SSW., 13 knots.
*Commander in chief.	G-42-----	2315-----	11.15 p. m.	Send group of destroyers to find Lutzow. Lutzow was lost to view at 9.30 p. m. in 007e on course S., slow speed. Re- port numbers of boats.
*Elbing-----	Commander in chief.	2319-----	11.22 p. m.	Fleet: Recognition signal of the enemy from 11 p. m. on is "u."
Rostock-----	do-----	2321-----	11.38 p. m.	Opened fire on enemy light cruisers and destroyers on southerly course in 012e. Signed, First leader of destroyers.
Commander in chief.	Fleet-----	2332-----	11.34 p. m.	Course of own main body SE. by S.
*Rostock-----	Commander in chief.	2332-----	11.36 p. m.	All flotillas: Concentrate by 4 a. m. near own main body in vicinity of Horn Reef; otherwise take course around Skagen. First leader of destroyers.
*Frankfurt-----	do-----	2333-----	11.45 p. m.	Fleet: The recognition signal of the enemy is "ua," not "u." Com- mander Scouting Division II.
S-24-----	Rostock-----	2302-----	do-----	Fleet: 054aVII, destroyers, course S. at high speed. Signed Flotilla VII.
Frankfurt-----	Commander in chief.	2302-----	11.46 p. m.	Am in battle with enemy light cruisers. Commander Scouting Division II.
König-----	do-----	2232-----	11.53 p. m.	Position, 007e; course S. by W., 11 knots. Where is enemy expected? Signed Lutzow.
June 1				
Commander in chief.	Westfalen-----	0002-----		Course SE. $\frac{1}{4}$ S. to Horn Reef Light- ship.
Do-----	Fleet-----	0006-----		Position own main body midnight. 012e, course SE. $\frac{1}{4}$ E.

*Summary of the most important radio messages and signals during the Battle
off the Skagerrak—Continued*

From—	To—	Time group	Time received	Contents
June 1--Continued				
S-52.....	Rostock.....	0003.....	12.15 a. m.	To commander in chief, First leader of destroyers: Please give exact position. Signed, Lutzow.
L-14.....	Commander in chief.	-----	12.33 a. m.	To commander in chief: Position 158a-VII. Am returning to port.
S-32.....	First leader of destroyers, commander in chief.	0040.....	12.52 a. m.	070a, disabled.
*G-40.....	Commander in chief.	0005.....	12.55 a. m.	Lutzow can proceed only at slow speed. Navigational aids lacking. Position 016e; course S. Battery reduced to one-third strength.
Frankfurt.....	do.....	-----	-----	4 enemy armored cruisers 093a. The reported enemy force on course SSE. (enemy interference).
Seydlitz.....	do.....	-----	1.08 a. m.	4 enemy armored cruisers in 093a on course S.
*König.....	do.....	0101.....	1.09 a. m.	Rostock disabled. Signed Commander Battle Squadron III.
Second leader of destroyers.	Flotilla III.....	-----	1.12 a. m.	3 boats proceed to burning ship to port.
L-22.....	Commander in chief.	2321.....	1.13 a. m.	Ascended for scouting. 12.55 a. m. position 122bVII, course N. by W. Nothing suspicious.
G-9.....	do.....	0110.....	1.16 a. m.	Enemy light cruisers in 069a, course S. One boat to the Rostock.
First leader of destroyers.	Flotilla III.....	-----	-----	-----
*G-101.....	Commander in chief.	0052.....	1.18 a. m.	Proceeding around Skagen. Flotilla II.
*Elbing.....	Flotilla III.....	Visual.....	-----	Here Elbing. Am disabled. Please come alongside.
S-52.....	Commander in chief.	0130.....	1.31 a. m.	Position 016e. Enemy interfering with radio. Destroyers in sight, course S.
*Rostock.....	do.....	0132.....	1.32 a. m.	Torpedo hit 055a. Main radio station out of commission. Can make 17 knots.
G-9.....	do.....	0122.....	1.34 a. m.	To First leader of destroyers: Reported enemy light cruisers out of sight to SW.
*Frankfurt.....	do.....	0131.....	1.37 a. m.	Where is van of own main body at 1.30? Own position 106a center. Commander Scouting Division II.
Commander in chief.....	Lutzow; G-40.....	0144.....	-----	Position own main body 1.30 a. m., 073a, SE. by S.
G-40.....	Commander in chief.	0117.....	1.47 a. m.	Commander scouting forces: Position Lutzow 1 a. m. 010e, course S., speed 7 knots.
*S-54.....	do.....	0137.....	1.51 a. m.	Rostock hit by torpedo, speed 15 knots, position 3 a. m. 077a. Signed, First leader of destroyers.
*S-53.....	do.....	0148.....	1.53 a. m.	Elbing disabled in 056a. Commander Flotilla III.
Commander in chief.....	Commander Scouting Division II, Frankfurt, Ostfriesland.	0203.....	-----	Re 0131: Van of own main body at 2 a. m. 087a, VII, lower.
S-54.....	Commander in chief.	0200.....	2.05 a. m.	Rostock radio out of commission, please relay through another vessel.
Commander Flotilla III.	Regensburg.....	0205.....	2.20 a. m.	Elbing is barely afloat. Commanding officer requests instructions. Signed Flotilla III.
G-39.....	Commander in chief.	0204.....	2.27 a. m.	Moltke is 59a at 1.30 a. m., course S, speed 24 knots. Am forced off by 4 enemy battleships. Will seek to close fleet at dawn. Signed, Commander scouting forces.
*Regensburg.....	V-71.....	-----	2.29 a. m.	V-71 and V-73 proceed to the Rostock.
*Nassau.....	Commander in chief.	0230.....	-----	One cruiser with 4 stacks sunk by gunfire; one destroyer rammed. Have closed rear of Battle Squadron II. Maximum speed 15 knots.
L-22.....	Entrance III.....	-----	2.31 a. m.	(Beginning missing * * *) N. by W., visibility 4 miles, in 68a several lights.
L-24.....	Commander in chief.	0203.....	2.35 a. m.	Am 087a, course NE. by N.

*Summary of the most important radio messages and signals during the Battle
off the Skagerrak—Continued*

From—	To—	Time group	Time received	Contents
June 1—Continued				
Commander in chief..	Flotilla III.....	0237.....	2.41 a. m.	To S-53: Save crew of Elbing; otherwise according to commanding officer's discretion.
*Regensburg.....	Commander in chief.	0259.....	2.46 a. m.	All flotillas assemble near van of Battle Squadron I.
S-32.....	Regensburg.....	0245.....	2.52 a. m.	For Lutzow: Position 089a VII; disabled.
*L-24.....	Entrance III.....	0240.....	2.55 a. m.	To commander in chief, naval airship detachment. Have been fired on without result in 069e IV by several surface craft.
Rostock.....	Second leader of destroyers.		2.57 a. m.	Please send destroyers to the Rostock.
*S-53.....	Regensburg.....	0250.....	3.01 a. m.	To commander in chief, I have practically all the crew of the Elbing on board. Am 086a at 3 a. m. Signed, Flotilla III.
Second leader of de- stroyers.	V-71, V-73.....			Go to assistance of Rostock.
L-17.....	Commander in chief.	0300.....	3.09 a. m.	Position 63e, steering NW. by N.
*Deutschland.....	do.....	0321.....	3.20 a. m.	Pommern destroyed by explosion in 103a. Signed Commander Battle Squadron III.
*Second leader of de- stroyers.	Flotillas VII, V.....			Destroyers with torpedoes ready for action take station for new attacks ahead of the battleship column. Boats without torpedoes assemble near Regensburg.
Commander in chief..	Fleet.....	0331.....		Position own main body at 4.30 a. m. 101a right center. SE. by S., speed 16 knots.
L-24.....	Entrance III.....		3.47 a. m.	To commander in chief, Naval Airship Detachment: Further enemy light forces in 115e IV. I have * * * steer * * * ordered.
*A destroyer.....	Fleet.....		3.50 a. m.	V-4 destroyed by explosion near bow. According to commanding officer rammed by submarine. Greater part of the crew saved.
Frankfurt.....	Commander in chief.	0344.....	do.....	Position of Frankfurt, Pillau 3.30 a. m. 111a, course SE. by S., speed 16 knots. Signed Commander Scouting Division II.
*G-39.....	do.....	0305.....	3.55 a. m.	Derflinger and Von der Tann have only two guns ready for action. Moltke has 1,000 tons water in hull. Seydlitz also damaged. Commander scouting forces.
L-14.....	Entrance III.....	0330.....	do.....	To commander in chief: Landing at Nordholz at 4.30 a. m.
G-39.....	Commander in chief.	0350.....	4.02 a. m.	Moltke at 3.30 a. m. in 117a left. Course SE. $\frac{3}{4}$ S., 18 knots. Commander scouting forces.
Oldenburg.....	Fleet.....	Visual...	4.03 a. m.	Submerged enemy submarine in sight to starboard.
Friederich der Grosse	do.....	do.....	4.08 a. m.	Turn 4 points to starboard. (Turned back with flag signals.)
*L-24.....	Entrance III.....	0400.....	4.10 a. m.	To fleet: 4 a. m. numerous enemy craft in 036d VII, at least 12 units. Position 016d, course S.
Moltke.....	Commander in chief.	Visual...	4.20 a. m.	Moltke will close Squadron I. Commander scouting forces.
Commander in chief..	Commander scouting forces.	0424.....		Scouting Division I return to port.
*L-11.....	Commander in chief.	0410.....	4.30 a. m.	In 033b, 12 English battleships, many light forces in sight, course NNE. at high speed.
*L-24.....	do.....	0415.....	4.33 a. m.	The reported enemy forces on course south at high speed. Am pursued by two cruisers in 029d, course N. by W.
Commander in chief..	Regensburg.....	0414.....	4.35 a. m.	To G-40: Report position of Lutzow.

*Summary of the most important radio messages and signals during the Battle
off the Skagerrak—Continued*

From—	To—	Time group	Time received	Contents
June 1—Continued				
*Commander in chief.	Fleet.....	0438.....	.....	Scouting Division II astern; Scouting Division IV ahead. First leader of destroyers dispose destroyers as submarine screen. Squadron II return to port.
Do.....	Moltke.....	Visual..	4.50 a. m..	Position Friedrich der Grosse at 4.30 is 117a left center.
Ostfriesland.....	Fleet.....	.....	....do....	Commanding officer Oldenburg wounded. Executive officer has assumed command.
Commander in chief.	....do.....	0454.....	.....	Course SE. Return to port eastward of Amrum Bank.
Do.....	....do.....	Visual..	5.08 a. m..	Return to port by divisions.
G-8.....	....do.....	.....	....do....	Formed scouting line with Flotilla V, according to orders. During the night nothing occurred. Have remained standing by the V-4 to assist that boat.
S-53.....	Regensburg, commander in chief.	0454.....	5.15 a. m..	The commanding officer, executive, and torpedo officers and cutter's crew remained aboard Elbing to blow up ship in case the enemy is sighted. Signed Commander Flotilla III.
Regensburg.....	Commander in chief.	.....	5.24 a. m..	From G-38 to commander scouting forces and commander in chief. At 2.45 a. m. the Lutzow abandoned and blown up.
*L-11.....	Entrance III...	0500.....	5.33 a. m..	028a three enemy battle cruisers, course W. Weather very misty, contact difficult to maintain.
*Do.....	Commander in chief.	0440.....	5.35 a. m..	043b, 6 further enemy battleships, course N. turning to W. Am under fire and being forced away, have contact with enemy main body.
Ostfriesland.....	....do.....	.....	5.40 a. m..	In last night's action the Helgoland received one major-caliber hit over water line in side armor. A piece of this armor 1 meter in diameter passed through the second deck. Shell itself exploded outside. No dead or wounded. Leak has been stopped. Commander Squadron I.
*L-11.....	Entrance III...	0510.....	5.47 a. m..	Reported enemy forces steering N. Scattered enemy light forces in 047a lost to view in the mists. Own course N. Position uncertain.
V-2.....	Rostock.....	0520.....	6 a. m.....	To first leader of destroyers; fleet: V-4 destroyed by explosion near how in 054y. 64 men and officers saved.
S-32.....	Regensburg.....	0525.....	....do....	To second leader of destroyers. First Half Flotilla, position at 5.30 a. m. 142a VII, course SE. $\frac{3}{4}$ s. Speed 10 knots.
*V-71.....	....do.....	0512.....	6.05 a. m..	To commander in chief. Rostock was blown up in 080a right center on approach of enemy forces. Crew on the destroyers.
Friedrich der Grosse.	Hamburg.....	Visual..	6.15 a. m..	To leader of submarines: Can you dispatch submarines to Elbing 056a VII?
L-24.....	Commander in chief.	0545.....	6.20 a. m..	Have been forced off by gunfire. Very misty in cruising altitude. Position 110e SW.
Do.....	....do.....	0600.....	....do....	Have returned owing to freshening south wind and low clouds, position 098e IV.
Hamburg.....	....do.....	Visual..	....do....	To fleet: As radio damaged, please give the last order through the Arcona. Available submarines stood out last night to northward. Signed Leader of Submarines.
L-11.....	Entrance III...	0450.....	6.25 a. m..	Position 0551a, nothing in sight. Visibility 2 miles own course S. by W.
L-24.....	Commander in chief.	....do....	....do....	In Skagerrak nothing suspicious. Position 105e IV. Will try regain contact with enemy.
*Ostfriesland.....	Fleet.....	Visual..	....do....	Have run into mine.
Do.....	....do.....	....do....	....do....	Parts of mine case found on deck.

*Summary of the most important radio messages and signals, during the Battle
off the Skagerrak—Continued*

From—	To—	Time group	Time received	Contents
June 1—Continued				
*Friedrich der Grosse	Squadron III	Visual	6.28 a. m.	Hold course.
Kaiserin	do	do	6.30 a. m.	Mines in sight to port.
Ostfriesland	Friedrich der Grosse	do	6.35 a. m.	Three-horn mine 1915.
Prinzregent Luitpold	do	do	6.38 a. m.	Mine appeared in the wake of this ship.
Friedrich der Grosse	Hamburg	do	6.40 a. m.	Return to port.
Ostfriesland	Commander in chief.	0629	6.46 a. m.	Ostfriesland struck mine 155b upper.
*Commander in chief	Arcona	0654		To Third Half Flotilla: Please dispatch available submarines to Elbing in 056a VII.
*Do	Fleet	0633	6.56 a. m.	Hold course on account danger of mines.
Deutschland	Commander in chief.	0511	7 a. m.	To Chief of Flotilla Forstmann: Send a Mine Sweeper Division to meet Squadron II to eastward of Amrum Bank. Signed Commander Squadron II.
Regensburg		Visual	7.03 a. m.	Torpedo tracks to port.
Frankfurt		do	7.06 a. m.	Submarine to starboard.
Commander in chief	Naval Airship Detachment.	0708		Air reconnaissance no longer required.
L-22	Entrance III	0510	7.10 a. m.	Position 140e, course SSW., very misty; am landing at 7 a. m.; antenna is in.
L-11	do	0700	7.12 a. m.	Position 060a, nothing in sight, own course SW. by W. Visibility 3 miles. Position uncertain.
Friedrich der Grosse	Squadron III	Visual	7.27 a. m.	Friedrich der Grosse no damage.
S-52	Regensburg	0720	7.48 a. m.	Second leader of destroyers, Flotilla IX, commander in chief, commander scouting forces: Position 160a VII, course toward Horn Reef, speed 25 knots.
Westfalen	Commander in chief.	0700	7.58 a. m.	Have sunk 5 destroyers attacking during the night engagements, apparently Botha class; shot into flames the sixth. The 5 numbers of destroyers observed: 60, 93, 30, 78, 606.
L-17	do	0600	8.16 a. m.	091b. Have lost contact with enemy. Course to 080a, nothing suspicious.
Nordholz	do	0800	8.29 a. m.	All airships recalled. Signed Naval Airship Detachment.
G-11	do		8.30 a. m.	Flotilla V has 3 officers, 56 men from destroyer Nomad on board, including 7 badly wounded.
Moltke	do	0810	8.46 a. m.	Would propose that Moltke and Derfflinger proceed at full speed to the Jade after passing eastward at Amrum Bank to dock at high water. The Derfflinger can not anchor. Signed, Commander scouting forces.
Do	do	0830	8.48 a. m.	To Flotilla Forstmann: Please send Mine Sweeper Division I and available boats of Division III and harbor flotillas as submarine screen to meet the entering detachments. Signed, Commander scouting forces.
S-73	Fleet		8.50 a. m.	Have 8 prisoners on board from new destroyer Tipperary, which was destroyed in 072a. In the vicinity were two older boats disabled, which were destroyed. Signed Flotilla III.
Neumunster	Commander in chief.	0755	8.55 a. m.	The flagship of the English main body: In case nothing in sight by 9.30 turn to reverse course and search to north.
Helgoland Island	do	0820	do	Leader of submarines: U-33 has stood out to the northward. Signed, Second Half Flotilla.
S-53	do		9 a. m.	The commanding officer of the Elbing proposed to steer for Horn Reef with the rest of the crew which had remained on board in the cutter or with the ship, provided same could be kept afloat.
Regensburg	do	0906	10.06 a. m.	Flotillas I, III, IX, and VII report which, if any, boats are missing,

*Summary of the most important radio messages and signals during the Battle
off the Skagerrak—Continued*

From—	To—	Time group	Time received	Contents
June 1—Continued				
Commander in chief.	Commander Baltic forces.	-----	-----	Second leader of destroyers (through Neumunster): Flotilla II is returning around Skagen.
L-13-----	Commander in chief.	0800-----	9.25 a. m.---	Position 7037y. Nothing suspicious. Twenty miles visibility; wind SW. by W. force 7; at 500 meters is strengthening. Proceeding to 017y(7).
S-24-----	Stettin-----	0916-----	9.26 a. m.---	To second leader of destroyers: All boats present.
V-45-----	Regensburg-----	0800-----	9.35 a. m.---	To second leader of destroyers: G-40 in tow of G-37 account damage in fight with destroyers. Position 8 a. m. 130a VII; speed 10 knots; proceeding to List; crew of Lutzow on board.
Kaisr-----	Friedrich der Grosse.	Visual-----	do-----	Kaiser received one hit major caliber in making the turn on starboard casemate armor. Shell remained in armor. Chief mechanic dangerously wounded. Outer hull and net gear damaged by the shell.
S-16-----	Fleet-----	-----	9.45 a. m.---	S-16 yesterday evening rescued two men from a mass of wreckage who claim to be the only survivors of the Indefatigable. Signed Flotilla VII.
Hamburg-----	Commander in chief.	0820-----	10.03 a. m.---	Please give this to Brügge and Nauen for further transmission when traffic permits. Damaged ships expected to return from Skagerrak. Submarines off east coast to extend period of waiting one day if possible. U-24, U-32 proceed to Tyne. Signed, Leader of submarines.
S-32-----	Regensburg-----	0945-----	do-----	First Half Flotilla; First leader of destroyers (through Regensburg). Am finally broken down. Have anchored with Lyngvig lighthouse, distant 2 miles.
Neumunster-----	Commander in chief.	0930-----	10.15 a. m.---	Damaged British ship, 8.15 a. m., about 027bVII, course SW. by W.
Do-----	do-----	1010-----	10.16 a. m.---	9.45 a. m. Enemy main body in 100a, course N., speed 20 knots.
L-11-----	do-----	0810-----	10.19 a. m.---	From G-38 to Commander Scouting Forces; First Leader of Destroyers: 7 a. m., G-40, V-45, with crew of Lutzow in 109a. G-40 can make only 10 knots. Please send supports. Report position to G-37.
Regensburg-----	do-----	0909-----	10.26 a. m.---	Commander scouting forces, referring 0945 to commander in chief; Flotilla I. Propose S-32 be towed in by fishing boats. Second leader of destroyers.
Helgoland Island-----	do-----	0930-----	10.32 a. m.---	Commander scouting forces, Commander First Group, Mine Sweeper Division III: All available boats meet the detachments to east of Amrum Bank. Mine Sweeper Division I, harbor flotilla, from Helgoland, S-127, are under way. Signed Flotilla Forstmann.
Do-----	do-----	0900-----	10.34 a. m.---	Leader of submarines: U-53 proceeding toward 056a(7). Second Half Flotilla.
Thüringen-----	do-----	-----	10.35 a. m.---	Thüringen fired on enemy cruiser at 1 a. m. and set fire to her, putting her out of action. At 1.50 a. m. a burning light cruiser was taken under fire and put out of action.
Regensburg-----	do-----	1025-----	10.36 a. m.---	To G-38, V-45: Report position at 10.30. Regensburg proceeding to meet you. Second leader of destroyers.
G-39-----	Regensburg-----	1024-----	10.40 a. m.---	Regensburg for V-40, S-32, first and second leaders of destroyers: In re 0800 and 0915 propose: V-40 to be towed to the Elbe and thence to Kiel. I propose to meet S-32 and take her in tow. Please send another boat. Signed First Half Flotilla.

*Summary of the most important radio messages and signals during the Battle
off the Skagerrak—Continued*

From—	To—	Time group	Time received	Contents
June 1—Continued				
Commander in chief..	Third Subma- rine Half Flo- tilla.	1043....	-----	Referring to Neumunster 0930: Dam- aged English ship at 8.15 a. m. in 027b on course SW. by W. Send sub marine to attack.
Prinzregent Luitpold..	Commander in chief.	Visual...	10.50 a. m..	No damage in battle. Signed Kaiserin.
Do.....	do.....	do.....	11 a. m.....	Prinzregent Luitpold, no damage.
S-53.....	Regensburg.....	0921....	11.07 a. m..	Second leader of destroyers, Fifth and Sixth Half Flotillas. Referring to 0906: Have no news of V-48 since yes- terday 8 p. m. S-54 and G-88 none since to-day 2 a. m. Signed, Flotilla III.
Commander in chief..	Fleet.....	1114....	-----	Commanders all detachments: All ships which are damaged and must return to port, report to Commander in chief; all other ships to Wilhelmshaven; Squadron II to the Elbe; one flotilla to Schillig Roads; one flotilla to Hel- goland; one half flotilla from Helgoland to proceed during darkness to point where Elbing was lost to find rest of crew. The other flotillas return to port.
Posen.....	do.....	-----	11.15 a. m..	Elbing broke through the formation this night and came into collision with the Posen. Posen destroyed one destroyer during day engagement yesterday and sank three during the night. Destroyer No. 30 and two others came up on the quarter. The last one turned off under smoke screen. The other two were disabled by gunfire. No. 78 came from ahead and was destroyed by Posen. Signed Rear Admiral Squadron I.
Commander in chief..	Second leader of destroyers.	1116....	-----	Referring to 0945 from S-32: The half flotilla which is dispatched to Elbing will also rescue the crew of S-32.
Do.....	Commander Squadron III.	Visual...	11.27 a. m..	Friedrich der Grosse suffered no damage.
Do.....	Fleet.....	1101....	11.33 a. m..	All wounded men who have not already been decorated are hereby awarded the iron cross, second class.
List.....	Commander in chief.	-----	12.02 p. m..	Seaplane 541 took off from List at 7.40 on course WNW. Landed in Helgoland. Nothing suspicious. Scouted over 160b, visibility 2 to 3 miles.
Do.....	do.....	-----	12.03 p. m..	Seaplanes 291 and 507 took off at 8.35 a. m. toward 159b. Landed 9.20 a. m. List. Scouted over 144a, saw two own destroyers. Result of scouting: Nothing suspicious. Visibility 8 miles. Returned account of rain and increasing sea.
Do.....	do.....	-----	12.30 p. m..	Seaplane 569 took off at 8.40 from List. Course WNW. Landed. Scouted over 149a and 167a. Result of scout- ing: Nothing suspicious. Visibility 5 miles. Returned account engine trouble.
Do.....	do.....	1045....	12.05 p. m..	To commander in chief and commander scouting forces: Seaplanes 508 and 291 landed. Went over 158b and 152b and returned. Nothing suspicious. Visibility 1 mile.
Do.....	do.....	1130....	12.08 p. m..	Seaplane 502 took off at 11.30. Course WNW. Landed 1.05 p. m. List. Scouted over 156b, 124b, and 148b. Sighted own craft 156b, course WNW. 148b, same. Nothing suspicious. Visibility 2-4 miles.
Nordholz.....	do.....	1157....	12.09 p. m..	L-11, return to port. Fresh south winds. Report position. Naval Air- ship Detachment.
L-11.....	do.....	1045....	12.12 p. m..	Landing Nordholz at 1 p. m.
Do.....	do.....	1210....	12.20 p. m..	Naval Airship Detachment: To 1157; position 7167b,

*Summary of the most important radio messages and signals during the Battle
off the Skagerrak—Continued*

From—	To—	Time group	Time received	Contents
June 1—Continued				
Regensburg.....	S-32.....	1038.....	12. 20 p. m..	To Flotilla I: Have dispatched V-73 to Normands Deep to tow S-32.
Moltke.....	Commander in chief.	.....	.....do.....	In the first part of the battle the following enemy ships were engaged: 3 Lions, 1 Tiger, and 2 Indomitables; later, 5 battleships definitely determined in battle. In the first part of battle 2 battle cruisers put out of action by Scouting Division I; one probably sunk. A destroyer asked in passing if it were known that the sunken battle cruiser was the Queen Mary, number of destroyer not known. Name of sunken battle cruiser not known. In the second part of the battle one older armored cruiser of the Sulej type definitely known to be sunk, probably by torpedo from the Lutzow. Further, one light cruiser badly damaged and one destroyer sunk by the Von der Tann. Observed the sinking of one of own destroyers, severe damage to two others. Fate of the Wiesbaden not known here. Many heavy hits on the Lutzow; broadside torpedo compartment, central station, and fire-control central full of water. Radio and turret B out of action. Addenda: Flotilla VII reports: S-68 picked up two men in wreckage who claim to be the sole survivors of the Indefatigable. Signed, Commander scouting forces.
König.....	Fleet.....	.....	12.45 p. m..	Damage to König: 8 major caliber hits, two 15-cm. hits. Damage: Forward magazines flooded, one oil-fired boiler and both anchor capstans out of commission. Torpedo net damaged. About 1,000 tons of water in hull. One surgeon, 29 men killed, 16 wounded.
Do.....	do.....	1226.....	.....do.....	To 1114: König, Grosser Kurfurst, and Markgraf must return to port. König and Grosser Kurfurst can not anchor. Signed, Commander Battle Squadron III.
Moltke.....	Commander in chief.	1025.....	12.50 p. m..	To Navy yard, Wilhelmshaven, captain of the port: Hold both docks ready at 1.15 p. m. to-day for the Moltke and Derfflinger. Further dry dock for the Moltke and floating dock for the Seydlitz priority. Signed, Commander scouting forces.
Helgoland Island.....	do.....	1247.....	12.57 p. m..	Radio from seaplane: 145b enemy submarine.
Neumunster.....	do.....	1030.....	1 p. m.....	To 0930: Damaged enemy ship is being towed; speed 7 knots. Reference to ship reported in 027b VII.
Moltke.....	do.....	.....	.....do.....	V-28 reports: Have two prisoners on board from Queen Mary, which was sunk. Further articles belonging to destroyer Laurel were picked up at point where she was sunk. Signed, Commander scouting forces.
Ostfriesland.....	do.....	1249.....	1.05 p. m..	Squadron I, Rear Admiral Squadron I Referring to 1114: Ostfriesland to dock; Nassau, Oldenburg to Wilhelmshaven Roads. Rest of squadron to Schillig Roads on patrol till morning. Signed Battle Squadron I.
Markgraf.....	do.....	.....	1.10 p. m..	Most serious damage: Port engine out of commission. Leak near the stern. Can make 13 knots. Other minor injuries.

*Summary of the most important radio messages and signals during the Battle
off the Skagerrak—Continued*

From—	To—	Time group	Time received	Contents
June 1—Continued				
Markgraf.....	Fleet.....		1.10 p. m.	Markgraf sunk one light cruiser with four stacks by gunfire. Hits were observed on another cruiser which then turned off.
Oldenburg.....	Commander in chief.	0855.....	.....do.....	Commander Squadron I: Yesterday this ship sank a damaged destroyer; at night two others, including No. 30.
Posen.....	Fleet.....		1.15 p. m.	Of the six ships of Squadron I here assembled the Rheinland and Helgoland must return to port for repairs to the capstan, on account of necessity for anchoring. Helgoland will try to anchor in Schillig Roads and remain on patrol until morning. Rear Admiral Squadron I.
Regensburg.....	V-71.....	0047.....	1.20 p. m.	Commander scouting forces, Flotilla V: Flotilla V on patrol duty Schillig Roads. Signed, Second leader of destroyers.
V-28.....	Commander in chief.	0910.....	1.33 p. m.	Second leader of destroyers: Referring to 0906: V-27, V-29, S-35 sunk. Signed Flot. IX.
Helgoland Island.....	Fleet.....	1335.....		11 a. m. 043y and 12.47, severe explosions.
Do.....	Commander in chief.	1051.....	1.37 p. m.	To Commander Patrol Flotillas: Have swept channel "f" to Amrum Bank Lightship. No mine fields. Second Half Flot. of mine sweepers.
Helgoland Air Sta- tion.	do.....	1205.....	1.39 p. m.	To Commander scouting forces. List. Plane 557 has landed. 8 a. m. 160b; nothing suspicious. Visibility 2 to 4 miles.
Helgoland Island.....	do.....	1140.....	do.....	Helgoland intelligence service. Have swept position 8 to the Jade, then the Elbe. No mine fields. Position 11 a. m., position 4. Signed, Fourth Half Flotilla.
Do.....	do.....	1236.....	1.43 p. m.	Leader of submarines: Arcona for U-53: At dark advance to westward. Return on 3 June. Signed, Second Submarine Half Flotilla.
Do.....	do.....	1140.....	do.....	Fleet: Have to-day swept channel "f" "a," "c," and from position 8 to 1. Commander Flotilla Forstmann.
Do.....	do.....	1235.....	1.45 p. m.	Commander scouting forces: 11 a. m. and 1137, severe explosion to the westward.
Moltke.....	do.....	1330.....	2.04 p. m.	Patrol for to-day: Scouting Division IV. Signed, Commander scouting forces.
Air Station List.....	Commander in chief.	1250.....	2.06 p. m.	Seaplane 560 landed 9.20 136b, 9.45 120b. Nothing suspicious. Visibility 2-4 miles.
Do.....	do.....	1215.....	do.....	Seaplane 559 taking off, course NNW.
Do.....	do.....	1335.....	do.....	Seaplane 561 taking off over 156b.
Do.....	do.....	1305.....	do.....	Seaplane 503 landed 156b, own vessels, course NNW. 136b, 120a own vessels. Nothing suspicious. Visibility 2-4 miles.
		1315.....	do.....	Seaplane 559 landed. 12.50 in 165a own vessels, 1 p. m. in 152a. Nothing suspicious. Visibility 1 to 2 miles.
Westfalen.....	Fleet.....		2.13 p. m.	Westfalen, 2 killed, 1 severely wounded, 1 lightly wounded, including captain, as result of gunfire.
S-15.....	Regensburg.....	0145.....	2.16 p. m.	First leader of destroyers; Fleet: Prisoner stated with certainty destroyer of C class blown up shortly after opening fire. His destroyer was in the immediate vicinity. Signed, Flotilla III.
Pillau.....	do.....	1203.....	2.18 p. m.	Navy Yard, Wilhelmshaven. Please send two strong pumping tugs to meet Seydlitz as soon as possible eastward of Amrum Bank. Signed Seydlitz.

*Summary of the most important radio messages and signals during the Battle
off the Skagerrak—Continued*

From—	To—	Time group	Time received	Contents
June 1—Continued				
Commander Mine Sweeper Division.	Commander in chief.	1341.....	2.23 p. m....	To commander scouting forces: Sea- plane 483 in 147 and 146b has dropped three bombs where submarine sub- merged.
Stettin.....	Fleet.....		2.25 p. m....	During the night action, at 10 p. m., 2 cruisers with 4 stacks of Weymouth class was set afire by gunfire. Frau- enlob lost to sight after a severe explo- sion; had considerable list. Signed, Scouting Division IV.
Regensburg.....	Commander in chief.	1431.....	2.37 p. m....	To commander scouting forces, Cap- tain of the Port, Naval Station: Lut- zow's crew is on board. Position at 2.30 p. m. point B; propose to enter locks at Wilhelmshaven at 6.30 p. m. G-40 is safe. Second leader of de- stroyers.
Do.....	do.....	1052.....	3.23 p. m....	Second leader of destroyers: Have the commanding officer and 65 prisoners of destroyer Nestor on board, and fur- ther 2 men from the Indefatigable who claim to be the sole survivors of that ship. Signed, S-16.
König.....	do.....	Visual...	3.25 p. m....	To Commander Squadron III and Com- mander in Chief: Damage to Grosser Kurfurst: 6 major caliber hits, 3 leaks. Anchor engine out of commission. Torpedo net damaged. About 800 tons of water in ship. Two officers and 12 men killed; 10 wounded. Signed Grosser Kurfurst.
Pillau.....	do.....	1430.....	4.20 p. m....	Commander scouting forces: Position 162b center. Am proceeding over position 6, 5 to Jade. Speed 5 knots. Seydlitz.
V-73.....	Regensburg.....	1515.....	4.45 p. m....	To commander scouting forces: First and second leaders of destroyers; Flo- tilla Forstmann: Have S-32 in tow, position 156aVII, speed 9 knots. Course past Normands Deep, thence along shore. Wind increasing from W. Please send tugs to meet me.
Moltke.....	Commander in chief.	1634.....	4.58 p. m....	To Seydlitz: Have ordered what you required. Make use of Mine Sweeper Division I. If nothing else is possible try to place ship near Amrum Bank in a position where ship can be pro- tected from submarine attacks and suitable for salvage work. Signed, Commander scouting forces.
Arcona.....	do.....	1230.....	5.20 p. m....	To Leader of submarines: 020b appar- ently a ship of Iron Duke class dam- aged with one destroyer on course SW. at moderate speed. Signed U-46.
Do.....	do.....	1105.....	5.22 p. m....	To Fleet; leader of submarines: Posi- tion 056a. Elbing not in sight. U-46.
Do.....	do.....	1405.....	5.24 p. m....	To Fleet: Have attempted attack on the ship. Signed U-46.
Deutschland.....	do.....		5.32 p. m....	Schlesien has bent propeller in passing over a wreck last night and must be docked. Can Schlesien dock at Ham- burg or Kiel?
Neumunster.....	Kaiser.....	1530.....	6.10 p. m....	To Commander in chief: Strong enemy forces are retiring to the Firth of Forth.
Pillau.....	do.....	1720.....	6.15 p. m....	To commander scouting forces: 5 p. m. position 164b right center, course SE. Signed Seydlitz.
Arcona.....	do.....	1858.....	7.17 p. m....	Fleet, leader of submarines: U-19, U-22, and U-64 have searched place of sinking of Elbing and found no trace of ship or crew. Third Half Flotilla.

*Summary of the most important radio messages and signals during the Battle
off the Skagerrak—Continued*

From—	To—	Time group	Times received	Contents
June 1—Continued				
Intelligence Service--	Kaiser-----		7.40 p. m--	To commander in chief and commander scouting forces: The Regensburg on May 31 in afternoon put an English destroyer out of action, designated 04, and damaged two further destroyers. Reported by Regensburg.
Do-----	do-----	5.50--	7.44 p. m--	S. S. Neumunster to commander in chief leader of submarines: <i>Secret</i> 1420 1744 1845 z. c. 4 n 82 shore station British east coast to "k. f." (Commander scouting forces and fleet flag.) Contents about as follows: Ship 00009 blown up; crew saved. Position has not as yet been deciphered. Signed, Deciphering Section.
Commander in chief--	Fleet-----	2002--	8.11 p. m--	According to reports from English prisoner, which are in agreement, the English battleship Warspite was sunk.
Ostfriesland-----	Commander in chief.		8.18 p. m--	The armored cruiser which was sunk early this morning by gunfire was either of the Shannon or Devonsbire class. The first assumption is more probable, according to the silhouettes. Among the other burning ships there was in all probability a larger ship. Proof: One major caliber hit on Helgoland and further heavy shell splashes near Squadron I, as well as silhouette of battleship. Nassau ran down an enemy destroyer. Signed, Battle Squadron I.
Stettin-----	Kaiser-----	1937--	8.43 p. m--	To commander scouting forces: The Frauenloh was lost to sight in 012eIV. Signed, Commander Scouting Division IV.
			9 p. m--	Seydlitz 165eVII upper center, steaming astern.
Arcona-----	Kaiser-----	1659--	10.22 p. m--	Leader of submarines, First and Third Half Flotillas: Large mine ships (?) in addition to destroyers with enemy forces. Lively traffic English and neutral shipping near Humher. Have attacked large English destroyer with 4 stacks; severe explosion and sinking observed. Position 125y8-. Course toward Ameland Island. Signed, UB-21.
June 2				
Westfalen-----	do-----	2320--	12.50 a. m--	To commander in chief, Commander Squadron I: The first destroyer sunk yesterday, No. 60, was probably a flotilla leader, since bow, stern, and broadside guns with shields were distinctly seen.
Intelligence Service--	do-----		8.23 a. m--	To commander in chief: Rotersand reports at 8.20 a. m.: Tow with Seydlitz near outer Jade.
Regensburg-----	Fleet-----		9.31 a. m--	Of our boats the following were lost: V-27, V-29, S-35, V-4, V-48. Nothing known of Flotilla II. At beginning of night action there were 10 boats with me. Signed, Second Leader of Destroyers.
June 3				
		0230--		To commander in chief: One cruiser with 4 stacks shot down. Collided with 1 destroyer. Then followed in rear of Squadron II. Maximum speed 15 knots. Signed, Nassau.

*Summary of the most important radio messages and signals during the Battle
off the Skagerrak—Continued*

From—	To—	Time group	Time received	Contents
June 3—Continued				
Intelligence Service...	Kaiser.....		8.30 a. m.	S. S. Berlin Admiralty: 7.35 morning. For Commander in chief, Kz 9004, telegram from Amsterdam: Official report from London. In the naval battle we lost the Queen Mary, Indefatigable, Invincible, Defence, Black Prince, Turbulent, Tipperary, Fortune, Sparrowhawk, and the Ardent. Other ships are still missing. Signed, Naval Staff.
Commander in chief.	Commander Squadron II.			To-day's conference on the developments of the battle showed that the determined holding of course by Squadron II under enemy fire relieved the battle cruisers from a critical situation. Squadron II has contributed to a large extent to the general results achieved. I wish to express my acknowledgment and my appreciation to you and your commanding officers for this and all other services rendered during the action. Signed, Commander in chief.
Stettin.....	Commander in chief.		4.30 p. m.	S. S. Schillig, to chief of staff of the fleet: With regard to the relief of the battle cruisers in the critical situation discussed to-day by Captain Hartog, it is not improbable that Scouting Division IV assisted in this, since at this time that force attacked 5 armored cruisers apparently of the Devonshire class. At this time Scouting Division IV was ahead of Squadron II and the firing of the latter was not heard. Further investigation will be made. Signed, Commander Scouting Division IV.
Commander in chief.	Fleet.....	1731.....	6.07 p. m.	The certain destruction of the following vessels can be counted on: Queen Mary and Indefatigable prisoners from both ships. Further two older armored cruisers and at least 10 destroyers.
Naval staff.....	Commander in chief.	1005.....	6.46 p. m.	Kz 9096—News telegram: Frauenlob was struck by torpedo at midnight in engine room; ship sank immediately; five men of crew until 9 a. m. in boat; then picked up by Dutch steamer Texel. Later English destroyer 625 demanded Texel surrender prisoners, and the captain of Texel successfully protested. Later the survivors were turned over to the towing vessel Thames. According to this steamer many empty rafts were passed.
Admiralty.....	do.....		7.59 a. m.	Secret. Kz 9122. There are rumors here regarding the loss of the Lutzow and the Rostock. Questions expected from the press and the Reichstag regarding same. Please consult with the Secretary of the Navy in regard to how these questions should be answered, and give your suggestion for the wording to this office.

*Summary of the most important radio messages and signals during the Battle
off the Skagerrak—Continued*

From—	To—	Time group	Time received	Contents
June 3—Continued				
Commander in chief.	Admiralty -----	1013-----	-----	Secret. To Kz 9122. In the event that the questions are not to be avoided suggest the following true statement of affairs be given in confidence: Lut-zow and Rostock after the conclusion of the battle and on the return to port were blown up by their own commanding officers after the crew, including all wounded, had been taken off by the destroyers and since the ships could not be brought into port. The publication of these facts is not desired for military reasons, since the loss of these ships can not be known to the enemy. Further, the enemy losses published by us include only the total losses which were definitely determined by observation. The Secretary of the Navy has not been here but has received a copy of this.
International service.	Kaiser-----	-----	11.30 a. m. --	S-S. Berlin, to commander in chief. Kz. 9159. Aarhus report. Swedish steamer Para brought in 2 petty officers and 1 fireman from the V-48 which were saved 8 hours after the sinking. Assumed to be the only survivors.
June 4				
Brügge-----	Commander in chief.	0121-----	1.35 a. m. --	The Flanders Submarine Flotilla took part in the operations with all boats according to the plan. All boats returned, only coast patrol encountered. Signed, Naval Corps Flanders.
June 5				
Commander in chief.	Admiralty -----	-----	8.05 a. m. --	For the press: According to report of Flotilla III a prisoner from the Turbulent wrote after being picked up that he had seen the sinking of the following ships: Warspite, Princess Royal, Turbulent, Nestor, Acasta, and certified to this over his signature. Two other prisoners confirmed this, although separated since being brought on board.
Do-----	do-----	-----	5.00 p. m. --	KB 1122. Flotilla V reports that prisoners state the Princess Royal had considerable list after sinking of Queen Mary, and that light cruiser Birmingham was sunk. It appears that 5 Queen Elizabeths took part in that action.
Naval staff-----	Commander in chief.	-----	10.37 p. m. --	Kz 9263. Attaché at Hague reports: English surgeon Burton of destroyer Tipperary, saved by Madlung, has stated that the light cruiser Euryalus was burning in vicinity of the sinking destroyer.
Do-----	do-----	-----	4.35 p. m. --	Kz 9321. Attaché Stockholm reports: Seaman Hugo Zenne from Jena, probably sole survivor of the Wiesbaden, saved by the Norwegian steamer Willy and landed in Dramme. Wiesbaden sunk by a torpedo.
Commander in chief.	Naval air station	-----	-----	BK 1045. Can L-11 give more definite information regarding types of battle-ships and battle cruisers sighted early on June 1. Report very valuable.

*Summary of the most important radio messages and signals during the Battle
off the Skagerrak—Continued*

From—	To—	Time group	Time received	Contents
June 6				
Intelligence service...	Kaiser.....	-----	7.39 p. m.---	S. S. Nordholz, to commander in chief. Secret. In re (KB 1045). Commanding officer of L-11 reports: The 6 rear ships first sighted, battleship group, had tripod masts, 2 stacks, and were believed to be either Bellerophon, Neptune, or Collingwood class. The type of the 6 leading ships could not be made out on account of the smoke and mists. The 6 battleships of the second group to the eastward also had tripod masts and 2 stacks. The 3 ships from the NE. had 2 tripod masts and 3 stacks and were made out as Australias or Invincibles. The battleships were steaming with 500 meters or less distance between units, speed 16 to 18 knots. The battle cruisers were steaming at high speed with intervals of about 800 to 900 meters between ships. Signed, Schutze.
Commander in chief.	Admiralty.....	-----	-----	KB 1050. The following English prisoners have been taken: From Queen Mary, 1 ensign, 1 man; from Indefatigable, 2 men; Tipperary, 7 men, 2 wounded; Nestor, 3 officers, 2 warrant officers, 75 men, 6 wounded; Nomad, 4 officers, 68 men, 1 officer, and 10 of these wounded; from Turbulent, 14 men, all wounded; total, 177 English prisoners.

SKETCHES (53)

JUTLAND

Fifth War College Edition : September, 1926

Reprinted and Revised : June, 1927



By Lieut. Commander H. H. Frost, U. S. Navy
and G. J. Hazard, Technical Assistant, N. W. C.



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EXPLANATION OF ABBREVIATIONS ON THE PLATES.

BRITISH.

G. F.—Grand Fleet.
B. F.—Battle Fleet.
B. C. F.—Battle Cruiser Fleet.
4th or 4.—Fourth Division of Battleships
5th B. S.—Fifth Battle Squadron.
1st B. C. S.—First Battle Cruiser Squadron.
2nd C. S.—Second Cruiser Squadron.
3rd L. C. S.—Third Light Cruiser Squadron.
12th Flot.—Twelfth Destroyer Flotilla.

NOTE.—British forces are shown by open arrows, rectangles, or ships; their tracks are indicated by full lines; and Arabic numerals are used for numbering their units.

GERMAN.

H. S. F.—High Sea Fleet.
B. F.—Battle Fleet.
S. F.—Scouting Forces.
Div. V.—Division V of Battleships.
S. D. I.—Scouting Division I.
Flot II.—Destroyer Flotilla II.
1st H. F.—First Half Flotilla.
U 70.—Submarine Number 70.
L 24.—Airsip Number 24.

NOTE.—German forces are shown by full black arrows, rectangles, or ships; their tracks are indicated by broken lines, and Roman numerals are used for numbering their units.

APPENDIX 18

List of British Destroyers and their distinguishing pendants

Oak.....	H 38.	Mischief.....	G 10.
Abdiel.....	G 07.	Kempenfelt.....	H Ans. 1.
Tipperary.....	H 6 Code.	Ossory.....	G 23.
Broke.....	H 98.	Mystic.....	H 2 Code.
Achates.....	H 46.	Morning Star.....	H Code 9.
Porpoise.....	H 27.	Magic.....	H Code 0.
Spitfire.....	H 41.	Mounsey.....	H Code 1.
Unity.....	H 68.	Mandate.....	H Ans. 8.
Garland.....	H 32.	Minion.....	H Code 7.
Ambuscade.....	H 62.	Martial.....	H Code 3.
Ardent.....	H 78.	Millbrook.....	H Code 6.
Fortune.....	H 30.	Moon.....	H Code 8.
Sparrowhawk.....	H 61.	Acheron.....	H 00.
Contest.....	H 63.	Ariel.....	H 37.
Shark.....	H 04.	Attack.....	H 86.
Acasta.....	H 59.	Hydra.....	H 50.
Christopher.....	H 51.	Badger.....	H 52.
Owl.....	H 31.	Goshawk.....	H 45.
Hardy.....	H 67.	Defender.....	H 28.
Midge.....	H 40.	Lizard.....	H 58.
Ophelia.....	G 03.	Lapwing.....	H 56.
Marne.....	H Ans. 6.	Nestor.....	G 30.
Manners.....	H Ans. 9.	Nomad.....	G 31.
Michael.....	H Code 5.	Narborough.....	G 39.
Mons.....	H 2 Ans.	Obdurate.....	G 26.
Faulknor.....	H 48.	Petard.....	G 66.
Marksman.....	H 96.	Pelican.....	G 58.
Obedient.....	G 25.	Nerissa.....	G 35.
Maenad.....	H Ans. 7.	Onslow.....	G 29.
Opal.....	G 02.	Moresby.....	H Code 1.
Mary Rose.....	H Code 4.	Nicator.....	G 55.
Marvel.....	G 20.	Lydiard.....	H 08.
Menace.....	H 7 Code.	Liberty.....	H 81.
Nessus.....	G 00.	Landrail.....	H 54.
Narwhal.....	G 47.	Laurel.....	H 91.
Mindful.....	G 04.	Moorsom.....	H Ans. 2.
Onslaught.....	G 22.	Morris.....	H Ans. 3.
Munster.....	H 8 Code.	Turbulent.....	G 42.
Nonsuch.....	G 12.	Termagant.....	G 24.
Noble.....	G 09.		

Preface.

This Volume of Plates is the tenth in a series developed since 1916.

1. Nov. 1916	The Battle of Jutland	Frost & Hazard	N.W.College
2. 1918	Letters on Naval Tactics (Prize Essay)	Frost	Naval Inst.
3. Nov. 1919	A Description of the Battle of Jutland.	Frost	Naval Inst.
4. Nov. 1920	The High Sea Fleet at Jutland.	Frost	Naval Inst.
5. Dec. 1921	Diagramatic Study of the Battle of Jutland	Frost	Naval Intell.
6. May 1922	Jutland (1st. Edition)	Frost & Hazard	N.W.College
7. Jun. 1923	Jutland (revised) 2nd. Edition	Frost & Hazard	N.W.College
8. Feb. 1924	Jutland (revised) 3rd. Edition	Frost & Hazard	N.W.College
8(a) Mar 1924	An Analysis of Jutland	Frost & Hazard	Naval Intell.
	(same plates as 8)		
9. May 1925	Jutland (revised) 4th Edition.	Reeves & Hazard	N.W.College
8(b) Feb. 1926	The German Official Account of the Sea Battle off the Skagerrak. (same plates as 8)	Frost & Hazard	Naval Intell.

The Present Volume is based upon the following official sketches and figures of the Battle:

Battle of Jutland - Official Despatches. (British & German)
Naval Operations, vol. III, Corbett. (British)
The War in the North Sea, 1914-1918, vol. V, Groos (German)

Particular acknowledgement is made to the excellent sketches of the latter authority, which have been of great value in compiling this volume.

In earlier editions of these series of plates valuable information was obtained from the sketches accompanying:

The Two White Nations, von Hase.
The Grand Fleet, 1914-1916, Jellicoe.
The German High Sea Fleet in the World War, Scheer.

H.H.F. & G.J.H.

BATTLE FLEET- Admiral Sir John R. Jellicoe.

Fleet Flagship-Iron Duke

Attached to Fleet Flag-Active(CL),Oak(DD),Abdiel(DM)

1	KING GEORGE V	} 1st.Div. Jerram	} 2nd.B.S. (8BB)	CASTOR(CL)
2	AJAX			KEMPENFELT(DL)
3	CENTURION			11th.FLOTILLA(14DD)
4	ERIN			
5	ORION	} 2nd.Div. Leveson	}	BOADICEA(CL) attached to 2nd.B.S.
6	MONARCH			
7	CONQUEROR			
8	THUNDERER			
9	IRON DUKE	} 3rd.Div. Duff	} 4th.B.S. (8BB)	TIPPERARY(DL)
10	ROYAL OAK			BROKE(DL)
11	SUPERB			4th.FLOTILLA(10DD)
12	CANADA			
13	BENBOW	} 4th.Div. Sturdee	}	BLANCHE(CL) attached to 4th B.S.
14	BELLEROPHON			
15	TEMERAIRE			
16	VANGUARD			
17	COLOSSUS	} 5th.Div. Gaunt	} 1st.B.S. (8BB)	FAULKNOB(DL)
18	COLLINGWOOD			MARKSMAN(DL)
19	NEPTUNE			12th.FLOTILLA(13DD)
20	ST.VINCENT			
21	MARLBOROUGH	} 6th.Div. Burney	}	BELLONA(CL) attached to 1st.B.S.
22	REVENGE			
23	HERCULES			
24	AGINCOURT			
	INVINCIBLE	} 3rd.B.C.S.(3CC) Hood	}	CHESTER(CL)
	INFLEXIBLE			CANTERBURY(CL)
	INDOMITABLE			4 DD (4th.Flot.)
	MINOTAUR	} 2nd.C.S.(4CA) Heath	}	4 DD (3-4th.Flot) (1-12th.Flot)
	HAMPSHIRE			
	COCHRANE			
	SHANNON			
	DEFENCE	} 1st.CS(4CA) Arbuthnot	}	
	WARRIOR			
	D.OF EDINBURGH			
	BLACK PRINCE			
	CALLIOPE	} 4th.L.C.S.(5CL) Le Mesurier	}	
	CONSTANCE			
	CAROLINE			
	ROYALIST			
	COMUS			

Total = 24BB, 3CC, 8CA, 12CL, 5DL, 46DD, 1DM = 99 vessels

FIGURE 1

BATTLE CRUISER FLEET — VICE ADM BEATTY.

🚩 LION	Fleet Flag	♣ CHAMPION(CL)
♣ PRIN. ROYAL	} 1st.B.C.S.(4CC) Brock	^ 13th.FLOTILLA(10DD)
♣ QUEEN MARY		^
♣ TIGER		
🚩 N. ZEALAND	} 2nd.B.C.S.(2CC) Pakenham	^ 9th.FLOTILLA(4DD)
♣ INDEFATIGABLE		^ 10th.FLOTILLA(4DD)
🚩 BARHAM	} 5th.B.S.(4BB) Evan-Thomas	♣ FEARLESS(CL)
♣ VALIANT		^ 1st.FLOTILLA(9DD)
♣ WARSPITE		
♣ MALAYA		
🚩 GALATEA	} 1st.L.C.S.(4CL) Alexander-Sinclair	
♣ PHAETON		
♣ INCONSTANT		
♣ CORDELIA		
🚩 FALMOUTH	} 3rd.L.C.S.(4CL) Napier	
♣ YARMOUTH		
♣ BIRKENHEAD		
♣ GLOUCESTER		
🚩 SOUTHAMPTON	} 2nd.L.C.S.(4CL) Goodenough	
♣ BIRMINGHAM		
♣ NOTTINGHAM		
♣ DUBLIN		
♣ ENGADINE	AV	

Total = 6CC, 4BB, 14CL, 27DD , 1AV = 52 vessels

FIGURE 2

BATTLE FLEET-VICE ADM.REINHARDT SCHEER

♣	KONIG	} 5th.Div. Behncke	} B.S.III Behncke	7BB
♣	GROSSER KURFURST			
♣	KRONPRINZ			
♣	MARKGRAF			
♣	KAISER	} 6th.Div Nordmann		
♣	KAISERIN			
♣	PRINZREGENT LUITPOLD			
♣				
♣	FRIEDRICH DER GROSSE	Fleet Flag	Scheer	1BB
♣	OSTRIESLAND	} 1st.Div. Schmidt	} B.S.I. Schmidt	8BB
♣	THURINGEN			
♣	HELGOLAND			
♣	OLDENBURG			
♣	POSEN	} 2nd.Div. Engelhardt		
♣	RHEINLAND			
♣	NASSAU			
♣	WESTFALEN			
♣	DEUTSCHLAND	} 3rd.Div. Mauve	} B.S.II Mauve	6-0BB
♣	HESSEN			
♣	POMMERN			
♣	HANNOVER	} 4th.Div. Dalwigk		
♣	SCHLESSEN			
♣	SCHLESWIG HOLSTEIN			
♣	STETTIN	} Scouting Div. IV. Von Reuter		5CL
♣	MUNCHEN			
♣	HAMBURG *			
♣	FRAUENLOB			
♣	STUTT GART			
♣	ROSTOCK	Michelsen	1CL	
^	FIRST FLOTILLA		4DD	
^	THIRD FLOTILLA		7DD	
^	FIFTH FLOTILLA		11DD	
^	SEVEVTH FLOTILLA		9DD	

16BB,6-0BB,6CL,31DD=59 vessels

* Flagship of Leader of Submarines
attached to S.D.IV for tactical purposes

FIGURE 3

SCOUTING FORCES — VICE ADM. HIPPER

♣ LUTZOW	}	Scouting Division I (5CC) Hipper	^ 9th. FLOTILLA (11DD)
♣ DERFFLINGER			
♣ SEYDLITZ			
♣ MOLTKE			
♣ VONDERTANN			
♣ FRANKFURT	}	Scouting Division II (4CL) Boedicker	^ 2nd. FLOTILLA (10DD)
♣ WIESBADEN			
♣ PILLAU			^ 6th. FLOTILLA (9DD)
♣ ELBING			
♣ REGENSBURG		Heinrich	

Total = 5CC, 5CL, 30DD = 40 vessels.

FORCES IN BATTLE CRUISER ENGAGEMENT

	British	German
Battleships.....	4.....	.....
Battle Cruisers.....	6.....	5.....
Light Cruisers.....	14.....	5.....
Destroyers.....	27.....	30.....
Aircraft Tender.....	1.....	.....
Total.....	52.....	40.....

TOTAL FORCES AT JUTLAND

	British	German
Battleships, 1st. Line.....	28.....	16.....
Battleships, 2nd. Line.....	0.....	6.....
Battle Cruiser.....	9.....	5.....
Armored Cruisers.....	8.....	.....
Light Cruisers.....	26.....	11.....
Destroyers.....	78.....	61.....
Mine Layers.....	1.....	.....
Aircraft Tender.....	1.....	.....
Total.....	151.....	99.....

FIGURE 4

BRITISH					
		Speed	Main Bat.	Armor	
				Side	Deck
♣	KING GEORGE V	21.5	10-13.5/45	12"	
♠	AJAX	21.5	10-13.5/45	12"	
♠	CENTURION	21.5	10-13.5/45	12"	
♠	ERIN	21.	10-13.5/45	12"	
♣	ORION	21.	10-13.5/45	12"	
♠	MONARCH	21.	10-13.5/45	12"	
♠	CONQUEROR	21.	10-13.5/45	12"	
♠	THUNDERER	21.	10-13.5/45	12"	
♣	IRON DUKE	21.	10-13.5/45	12"	
♠	ROYAL OAK	23.	8-15"/42	13"	
♣	SUPERB	20.75	10-12"/45	11"	
♠	CANADA	22.75	10-14"/45	9"	
♣	BENBOW	21.	10-13.5/45	12"	
♠	BELLEROPHON	20.75	10-12"/45	11"	
♠	TEMERAIRE	20.75	10-12"/45	11"	
♠	VANGUARD	21.	10-12"/50	9.75	
♣	COLOSSUS	21.	10-12"/50	10"	2.75
♠	COLLINGWOOD	21.	10-12"/50	9.75	
♠	NEPTUNE	21.	10-12"/50	10"	2.75
♠	ST. VINCENT	21	10-12"/50	9.75	
♣	MARLBOROUGH	21.	10-13.5/45	12"	
♠	REVENGE	23.	8-15"/42	13"	
♠	HERCULES	21.	10-12"/50	10"	2.75
♠	AGINCOURT	22.	14-12"/50	9"	
♣	LION	28.	8-13.5/45	9"	
♣	PRIN. ROYAL	28.	8-13.5/45	9"	
♠	QUEEN MARY	29.	8-13.5/45	9"	
♠	TIGER	29	8-13.5/45	9"	
♣	N ZEALAND	25	8-12"/50	6"	
♠	INDEFATIGABLE	25.	8-12"/50	6"	
♣	INVINCIBLE	25.	8-12"/50	6"	
♠	INFLEXIBLE	25	8-12"/45	6"	
♠	INDOMITABLE	25	8-12"/45	6"	
♣	BARHAM	25.	8-15"/42	13"	
♠	VALIANT	25.	8-15"/42	13"	
♠	WARSPITE	25.	8-15"/42	13"	
♠	MALAYA	25	8-15"/42	13"	

FIGURE 5

GERMAN				
	Speed	Main Bat.	Armor	
			Side	Deck
☐ KONIG	20.5	10-12"/45	14"	3"
● GROSSER KURFURST	20.5	10-12"/45	14"	3"
● KRONPRINZ	20.5	10-12"/45	14"	3"
● MARKGRAF	20.5	10-12"/45	14"	3"
☐ KAISER	20.	10-12"/50	14"	
● KAISERIN	20.	10-12"/50	14"	
● PRINZREGENT LUITPOLD	20.	10-12"/50	14"	
☐ FRIEDRICH-DER-GROSSE	20.	10-12"/50	14"	
☐ OSTFRIESLAND	20.5	10-12"/50	11.5"	3"
● THURINGEN	20.5	12-12"/50	11.5"	3"
● HELGOLAND	20.5	12-12"/50	11.5"	3"
● OLDENBURG	20.5	12-12"/50	11.5"	3"
● POSEN	19.5	12-11"/45	11.5"	
● RHEINLAND	19.5	12-11"/45	11.5"	
● NASSAU	19.5	12-11"/45	11.5"	
● WESTFALEN	19.5	12-11"/45	11.5"	
☐ DEUTSCHLAND ✓	18	4-11"/40	9.75"	3"
● HESSEN ✓	18	4-11"/40	9.75"	3"
● POMMERN	18	4-11"/40	9.75"	3"
● HANNOVER ✓	18	4-11"/40	9.75"	3"
● SCHLESSEN ✓	18	4-11"/40	9.75"	3"
● SCHLESWIG-HOLSTEIN ✓	18	4-11"/40	9.75"	3"
☐ LUTZOW	26.5	8-12"/50	12"	3"
● DERFFLINGER	26.5	8-12"/50	12"	3"
● SEYDLITZ	26.5	10-11"/50	11"	3"
● MOLTKE	25.	10-11"/50	11"	3"
● VON DER TANN	25	8-11"/45	9"	

FIGURE 6



Orders of the British Admiralty, 30 May

1. At Noon, 30 May the Admiralty warned Jellicoe that the High Sea Fleet might go to sea early next morning and that as many as 16 German submarines were out.
2. About noon the Admiralty ordered the Commander Dover Patrol to send the Harwich destroyers back to Harwich and to recall the Belgian Coast Patrol; the Rear Admiral East Coast to recall mine-sweeping sloops; the 3rd B.S. and 3rd C.S. to have steam ready daylight of the 31st; the submarines of the Harwich Force and the Blyth Flotilla to be ready on short notice.
3. Shortly after 5:00 P.M. the Admiralty learned that the High Sea Fleet had received a seemingly important operation signal.
4. At 5:40 P.M. the following was sent to C-in-C at Scapa. "You should concentrate to the eastward of the Long Forties, ready for eventualities."
- 5 At 5:40 S.O. 2nd B.S. made "Preparatory signal for leaving Cromarty"
- 6 At 5:40 C-in-C.G.F. made "Preparatory signal for leaving Scapa."
- 7 At 5:45 S.O., B.C.F. made signal "Raise steam for 22 knots."

FIGURE 7.

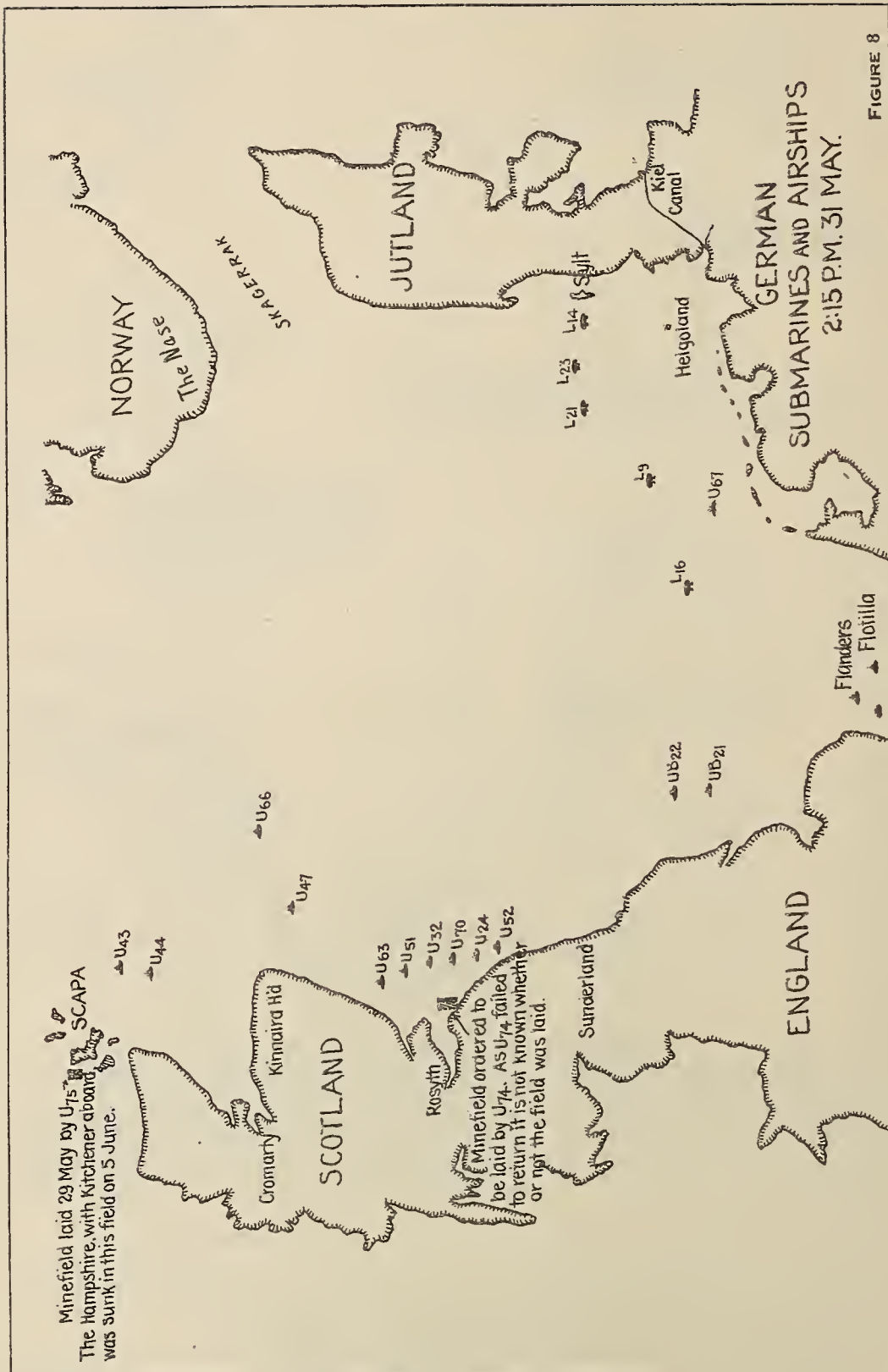


FIGURE 8

GERMAN
SUBMARINES AND AIRSHIPS
2:15 P.M. 31 MAY.

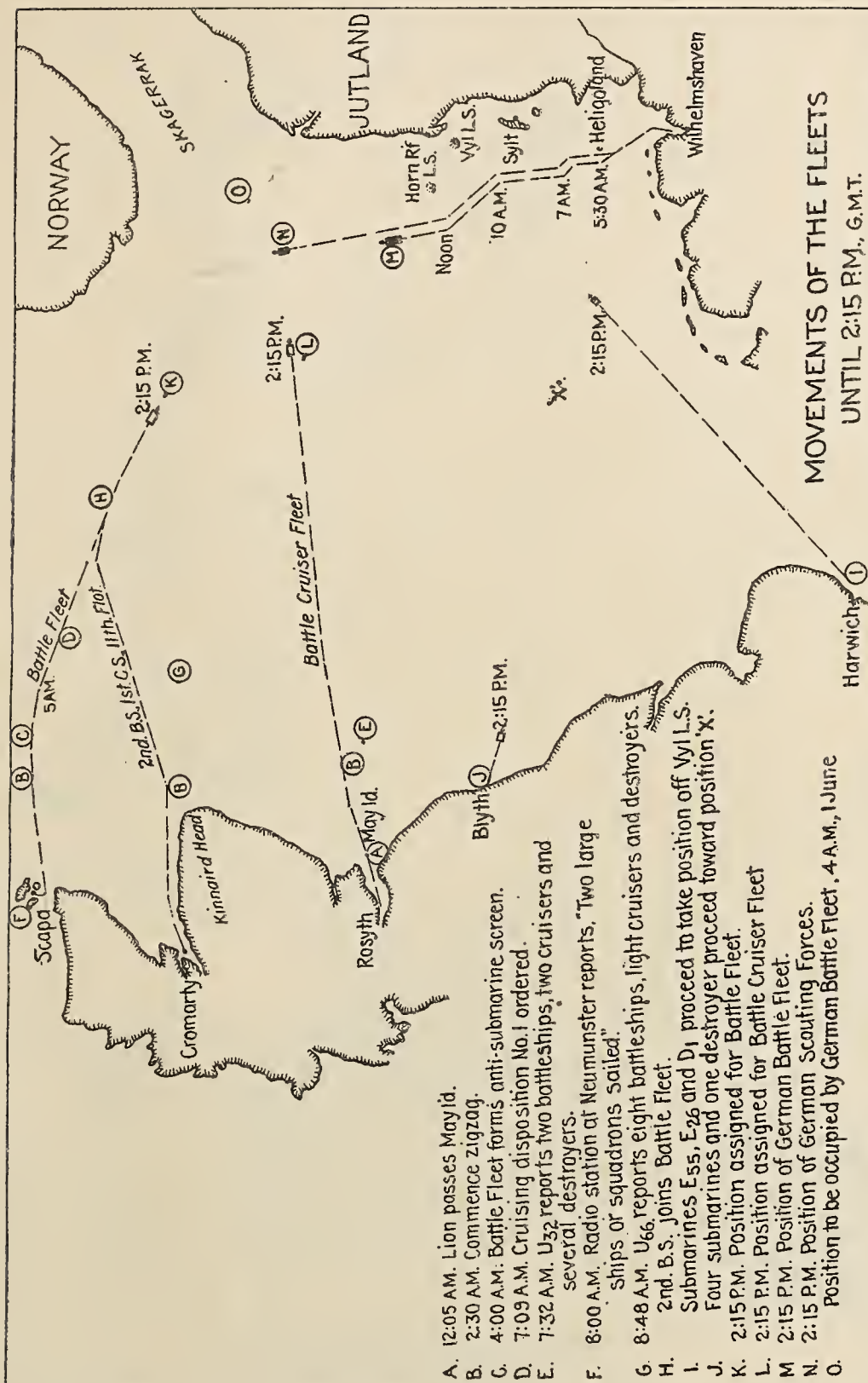


FIGURE 9



Types	JELlicoe Battle Fleet	BEATTY Battle Cruiser Fleet	SCHEER Battle Fleet	HIPPER Scouting Forces
Battleships, 1st line	24	4	16	
Battleships, 2nd line			6	
Battle Cruisers	3	6		5
Cruisers	8			
Light Cruisers	12	14	6	5
Destroyers & Leaders	51	27	31	30
Aircraft Tender		1		
Light Minelayer	1			

GRAND AND HIGH SEAS FLEETS.
2:15 P.M., 31 MAY 1916

FIGURE 10

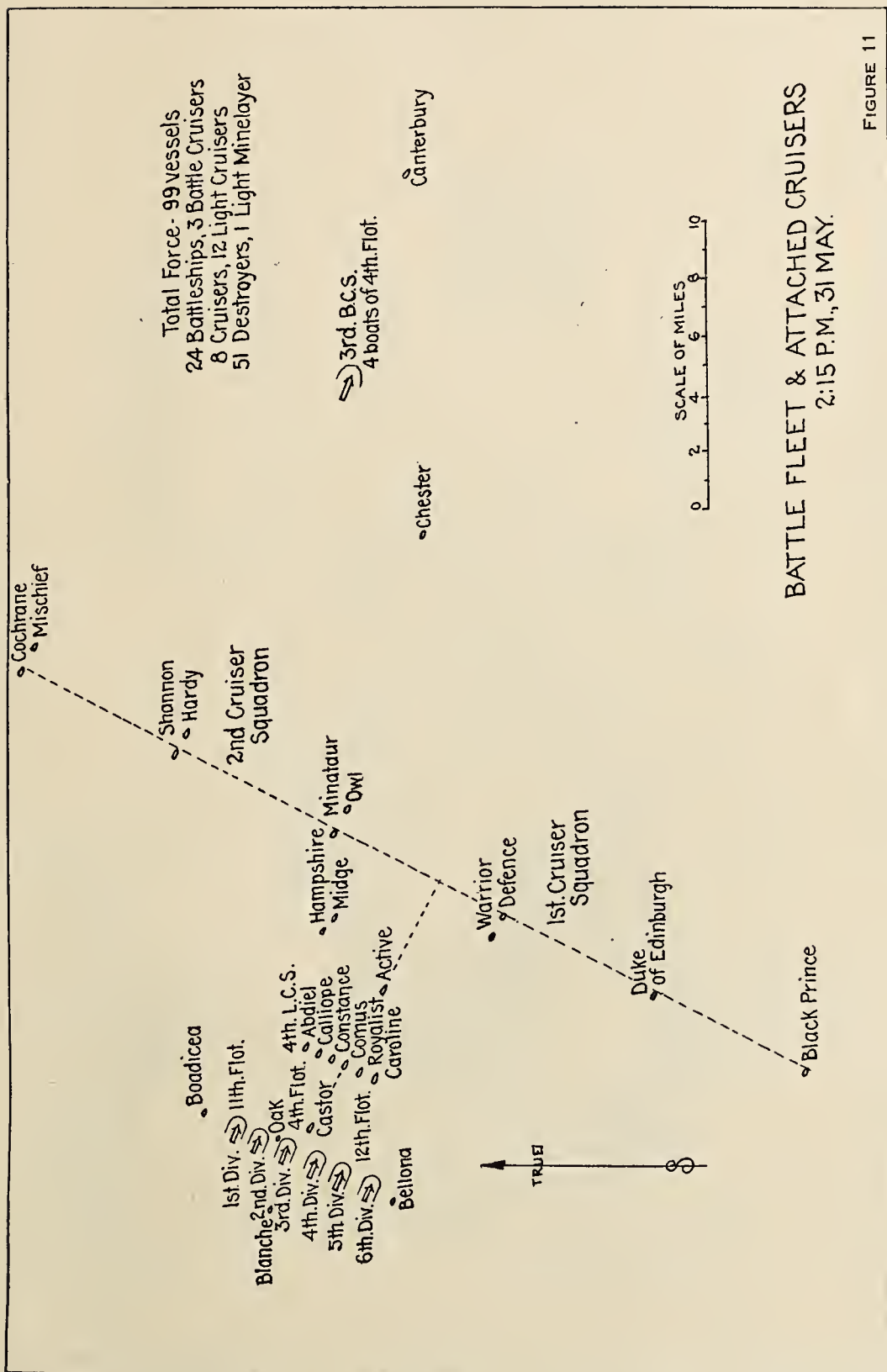


FIGURE 11

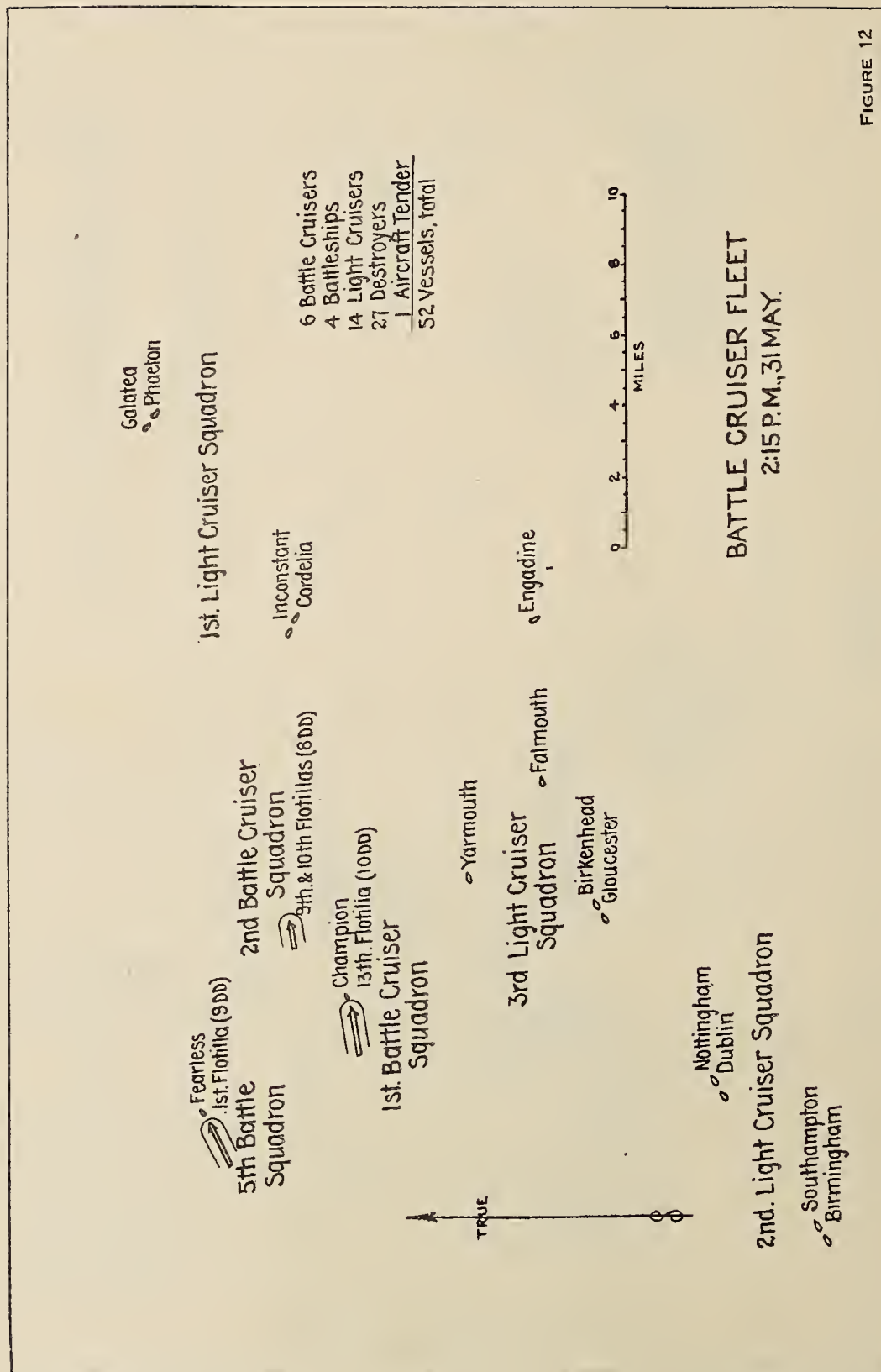
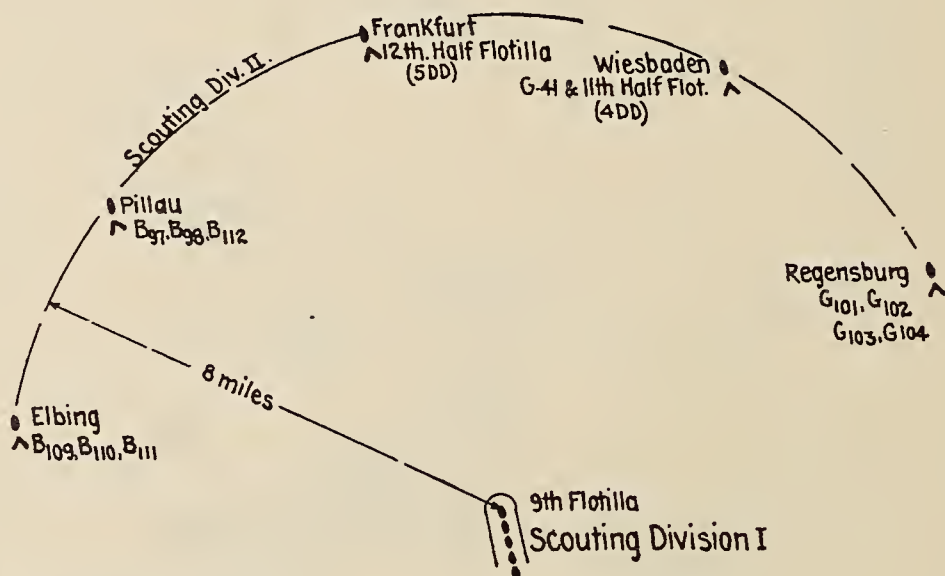


FIGURE 12



FIGURE 13



Scouting Division I

Lützow
Derfflinger
Seydlitz
Moltke
Von der Tann

Scouting Division II

Frankfurt
Pillau
Elbing
Wiesbaden
Regensburg (flagship of
2nd. leader of destroyers)

5 Battle Cruisers
5 Light Cruisers
30 Destroyers

40 Vessels, total

GERMAN SCOUTING FORCES 2:15 P.M., 31 MAY

FIGURE 14

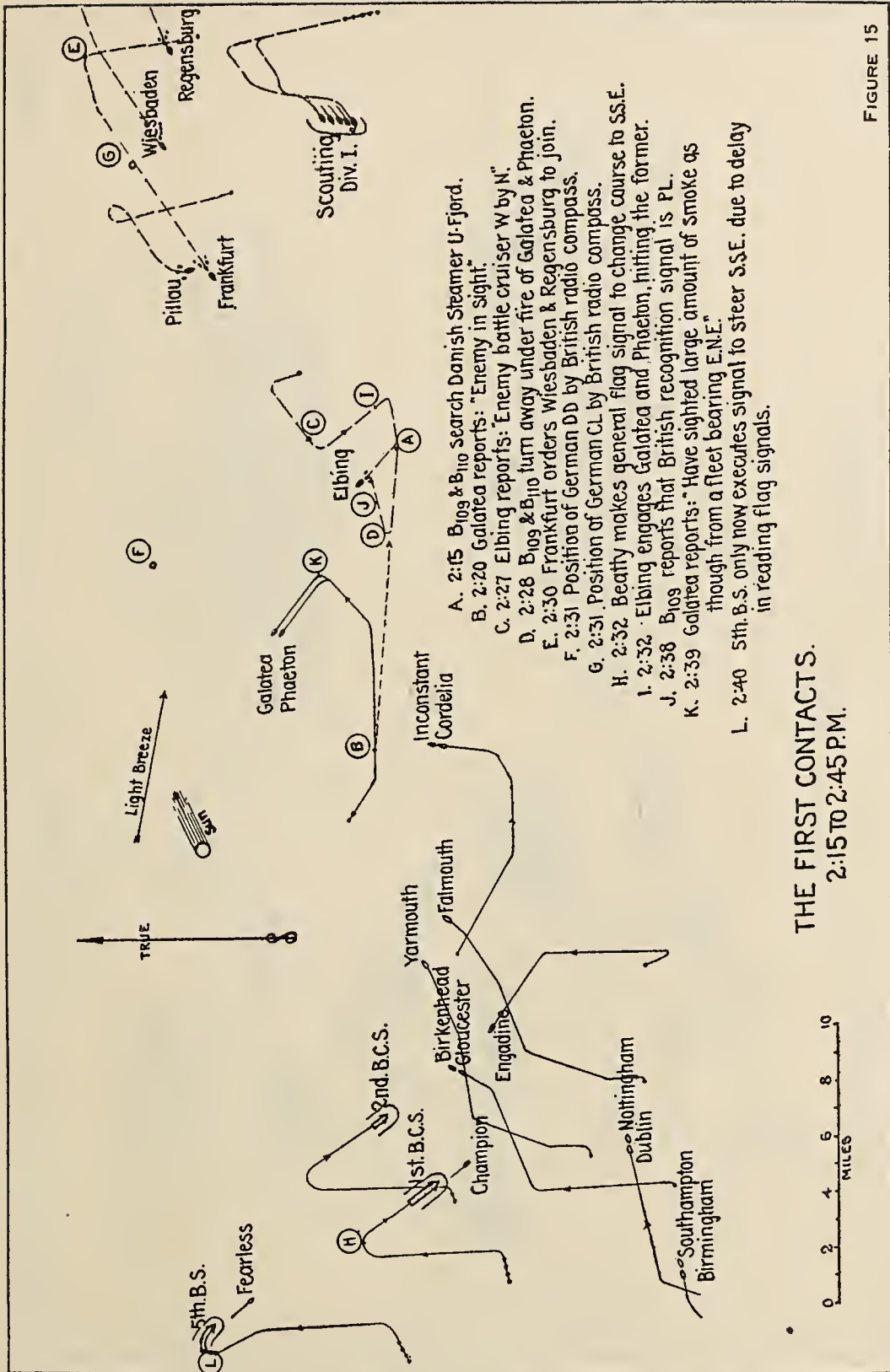


FIGURE 15

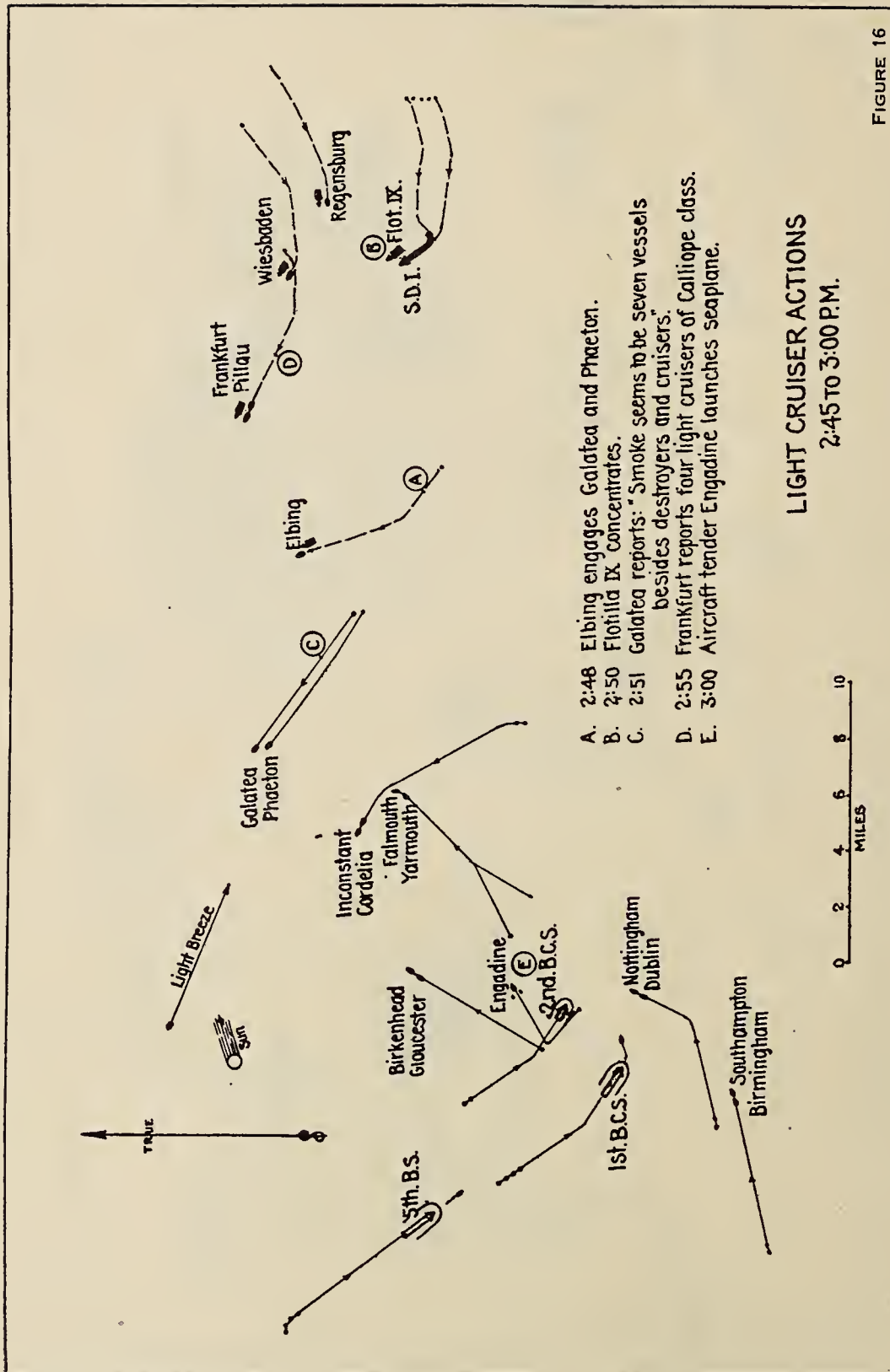


FIGURE 16

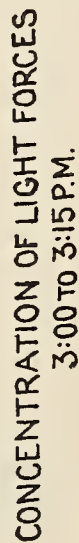


FIGURE 17

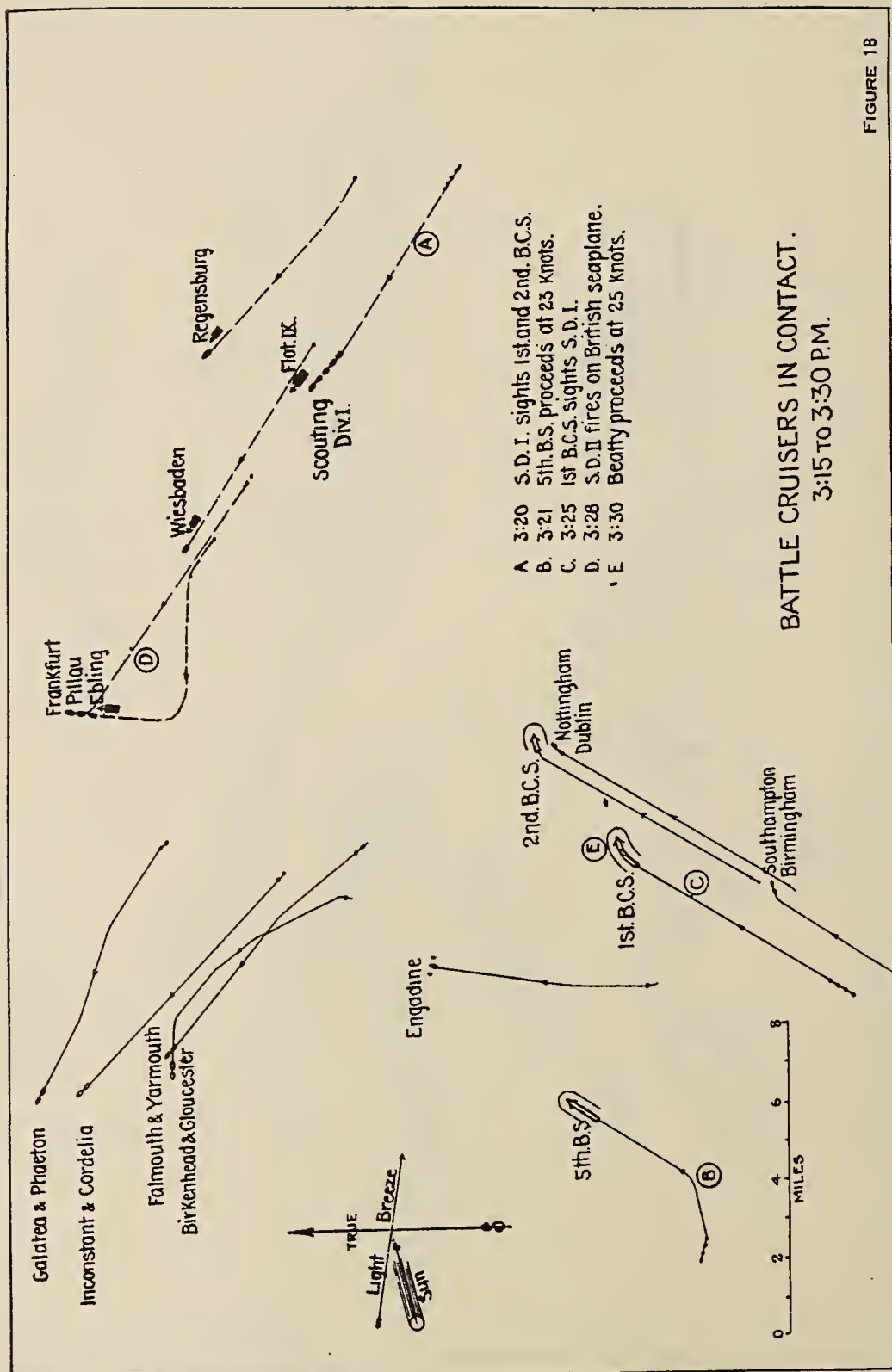
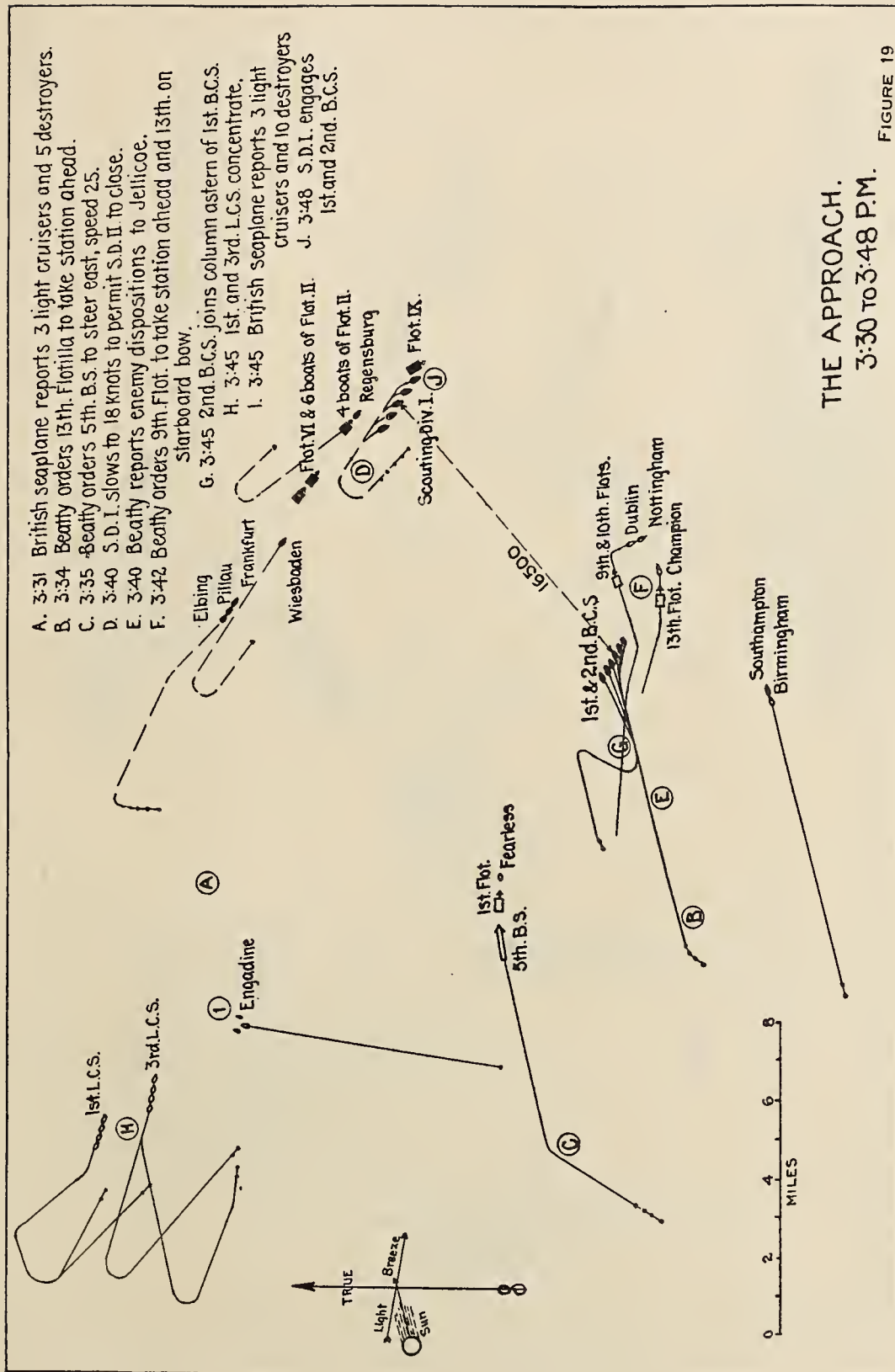


FIGURE 18



- A. 3:52 1st. B.C.S. heavily hit: Lion (2); Princess Royal (2); Tiger (4).
- B. 3:55 Beatty signals 13th. Flot. - "Opportunity appears favorable for attacking."
- C. 3:55 Goodenough orders 2nd.L.C.S. to spread on scouting line ahead of Lion.
- D. 3:55 Seydlitz' amidships turret wrecked.
- E. 3:58 5th. B.S. drives off S.D.II
- F. 4:00 Lion's amidships turret wrecked.

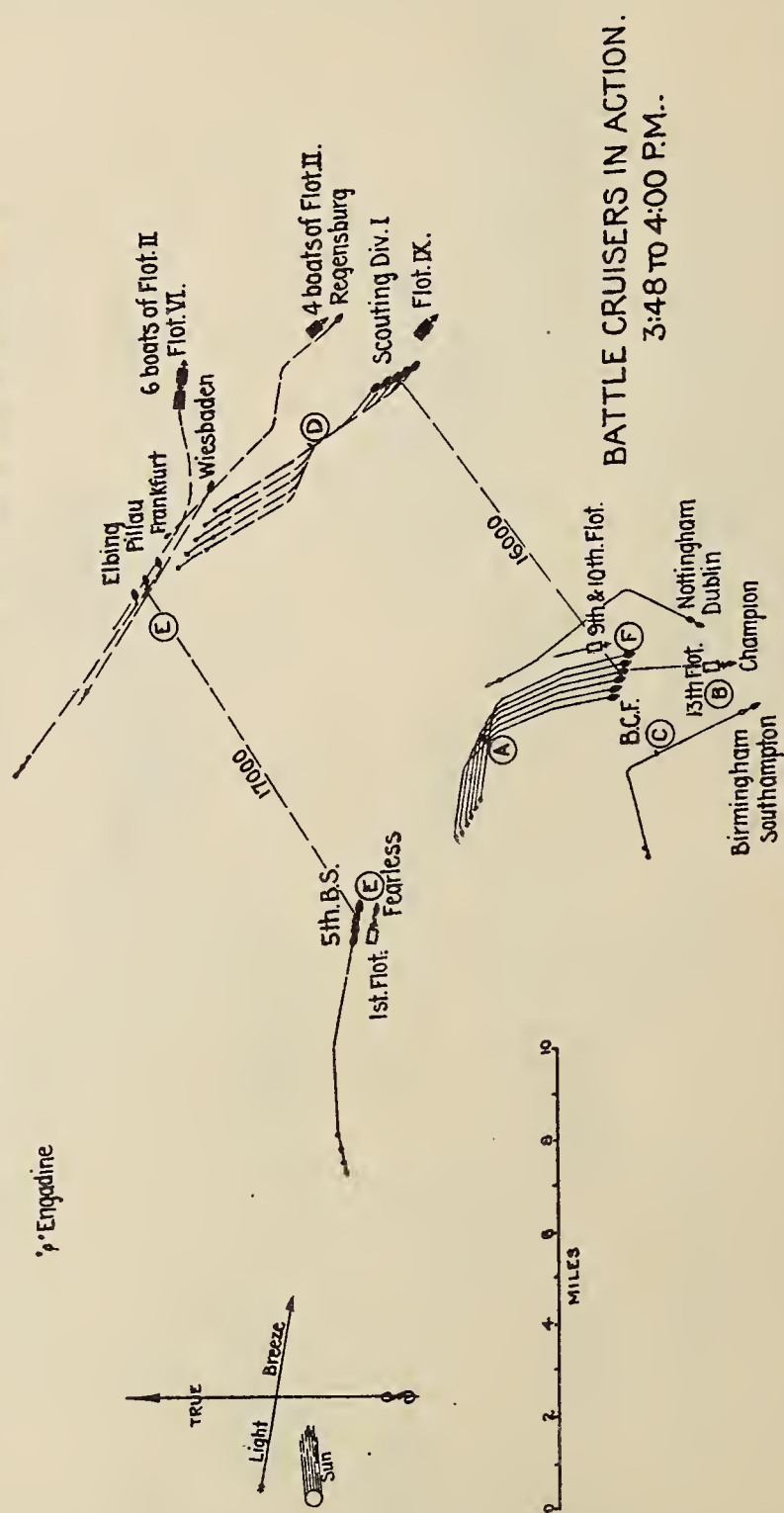


FIGURE 20

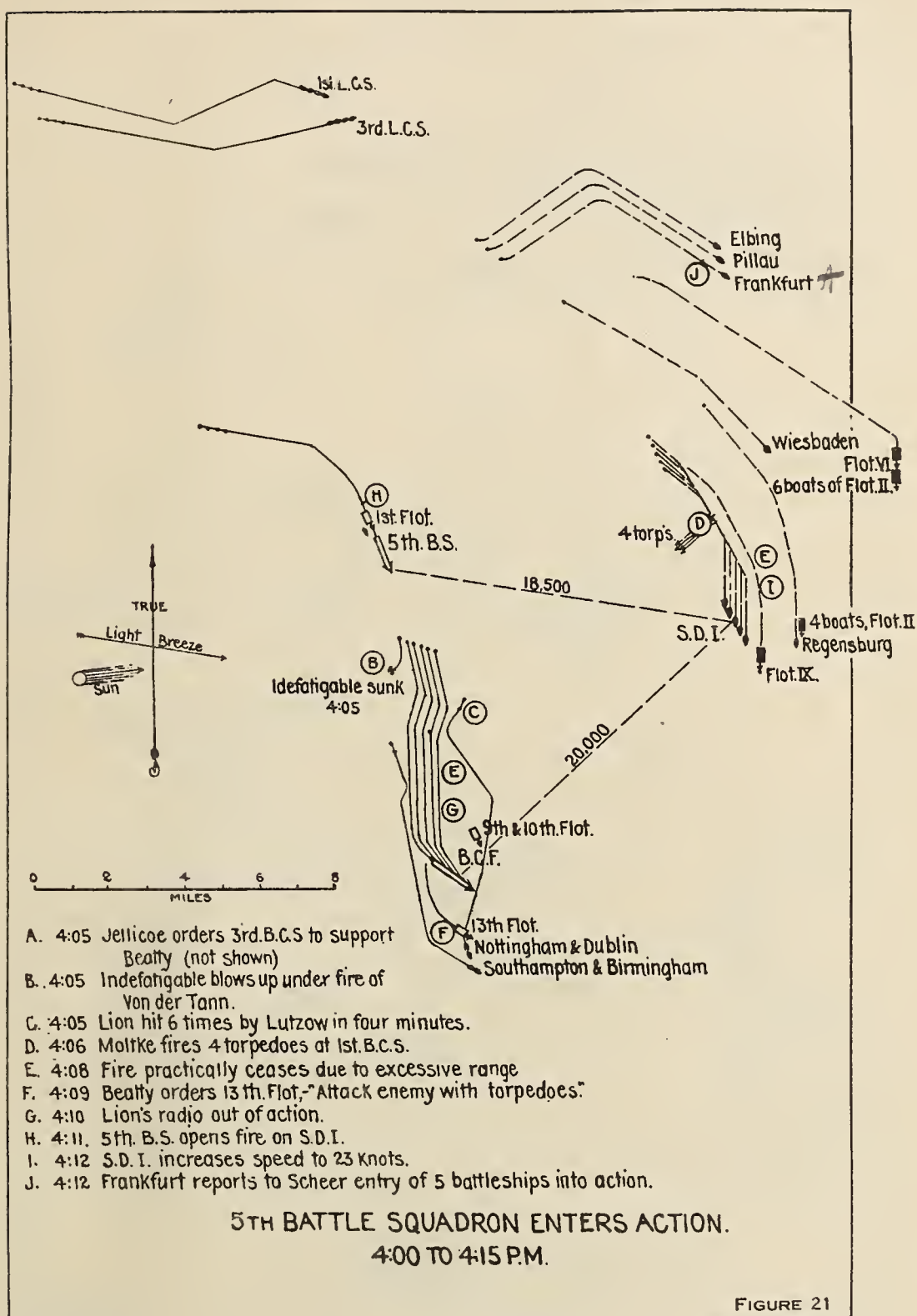
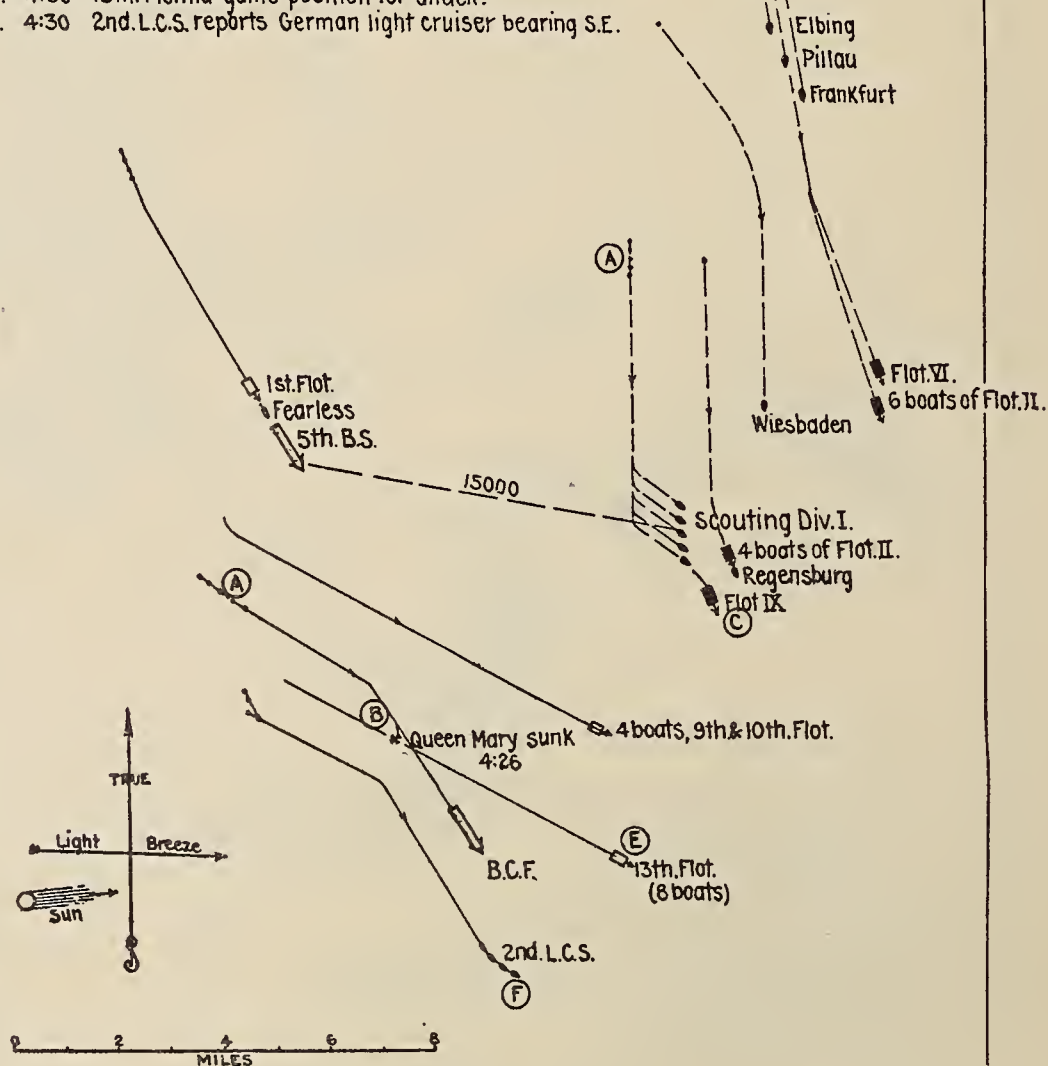


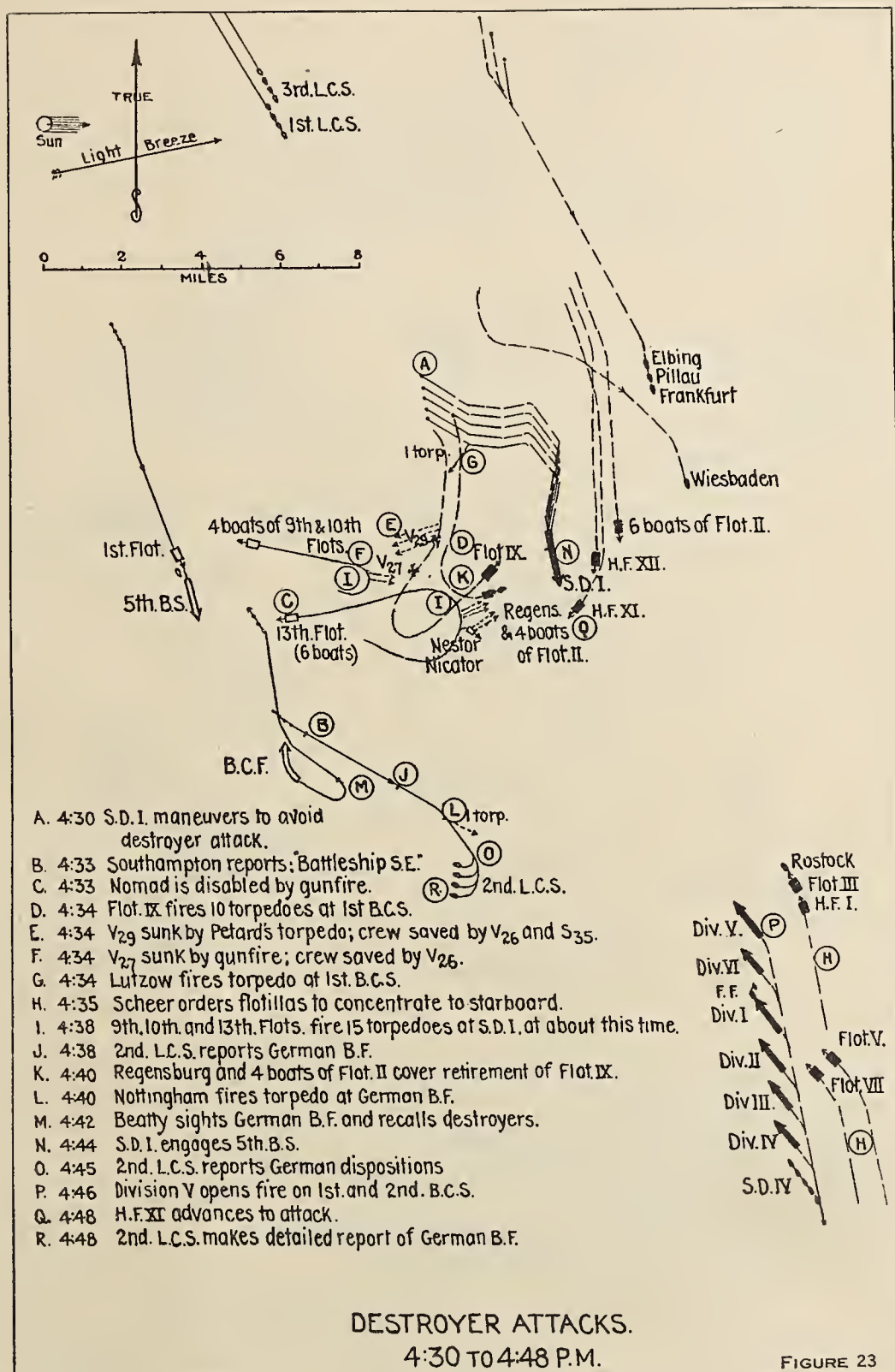
FIGURE 21

3rd.L.C.S.
1st.L.C.S.

- A. 4:15 The battle cruiser action again increases in intensity.
- B. 4:26 Queen Mary blows up under fire of Derfflinger and Seydlitz.
- C. 4:26 Flotilla IX commences its attack.
- D. 4:28 Stettin, ahead of German B.F., reports gunfire to Northwestward.
(not shown)
- E. 4:30 13th. Flotilla gains position for attack.
- F. 4:30 2nd.L.C.S. reports German light cruiser bearing S.E.



BATTLE CRUISER ACTION REACHES ITS HEIGHT.
4:15 TO 4:30 P.M.



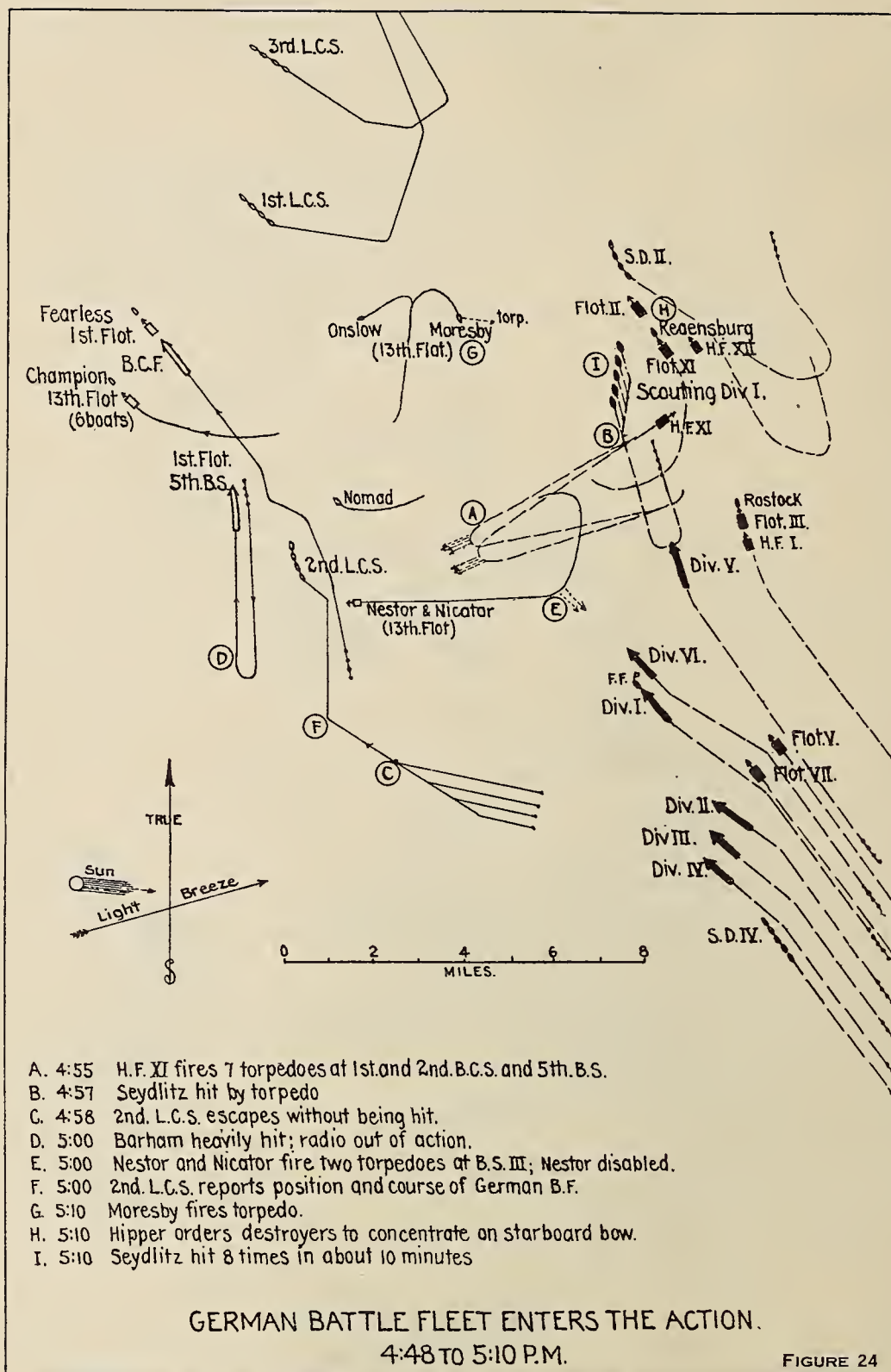


FIGURE 24

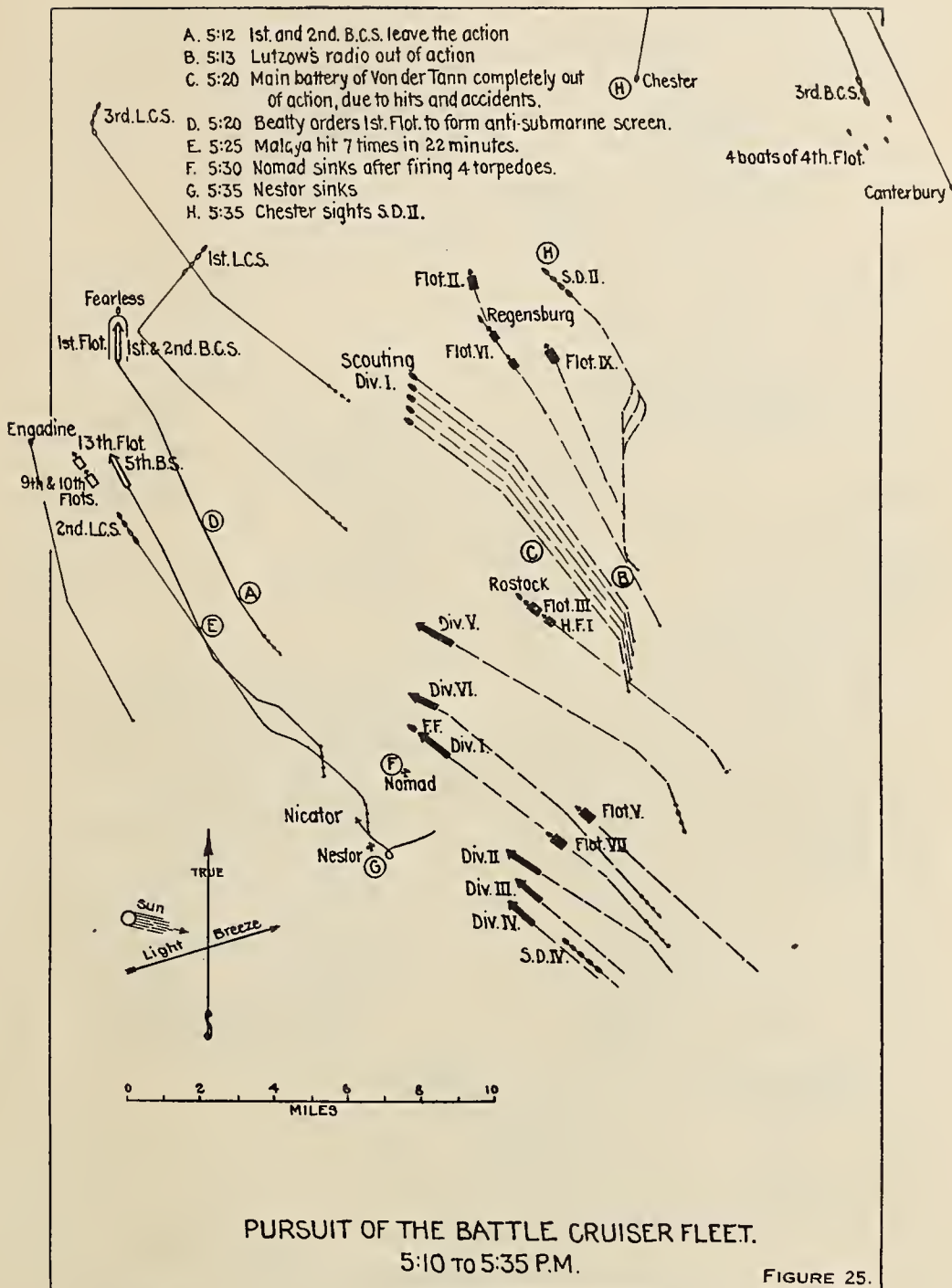
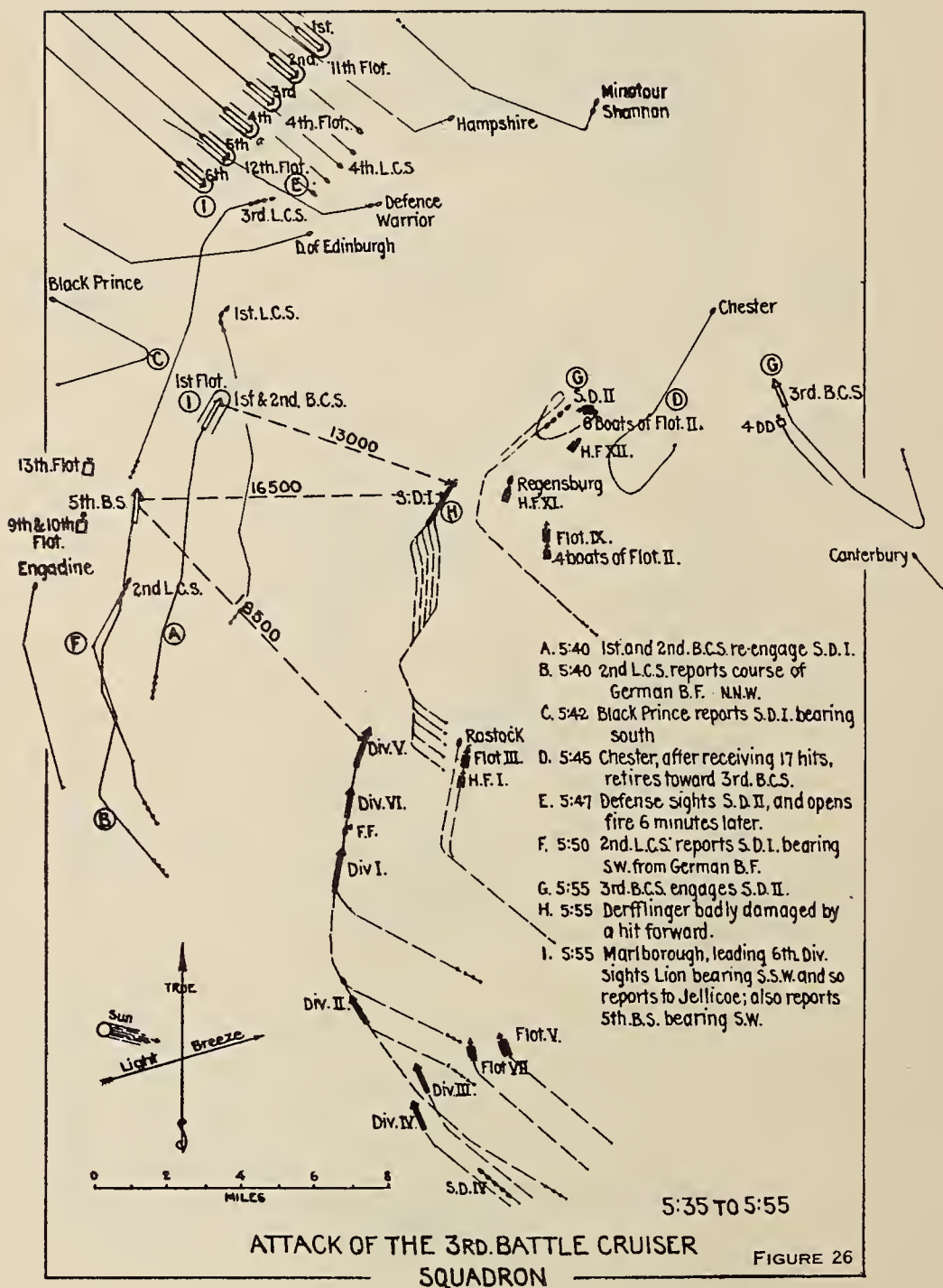


FIGURE 25.



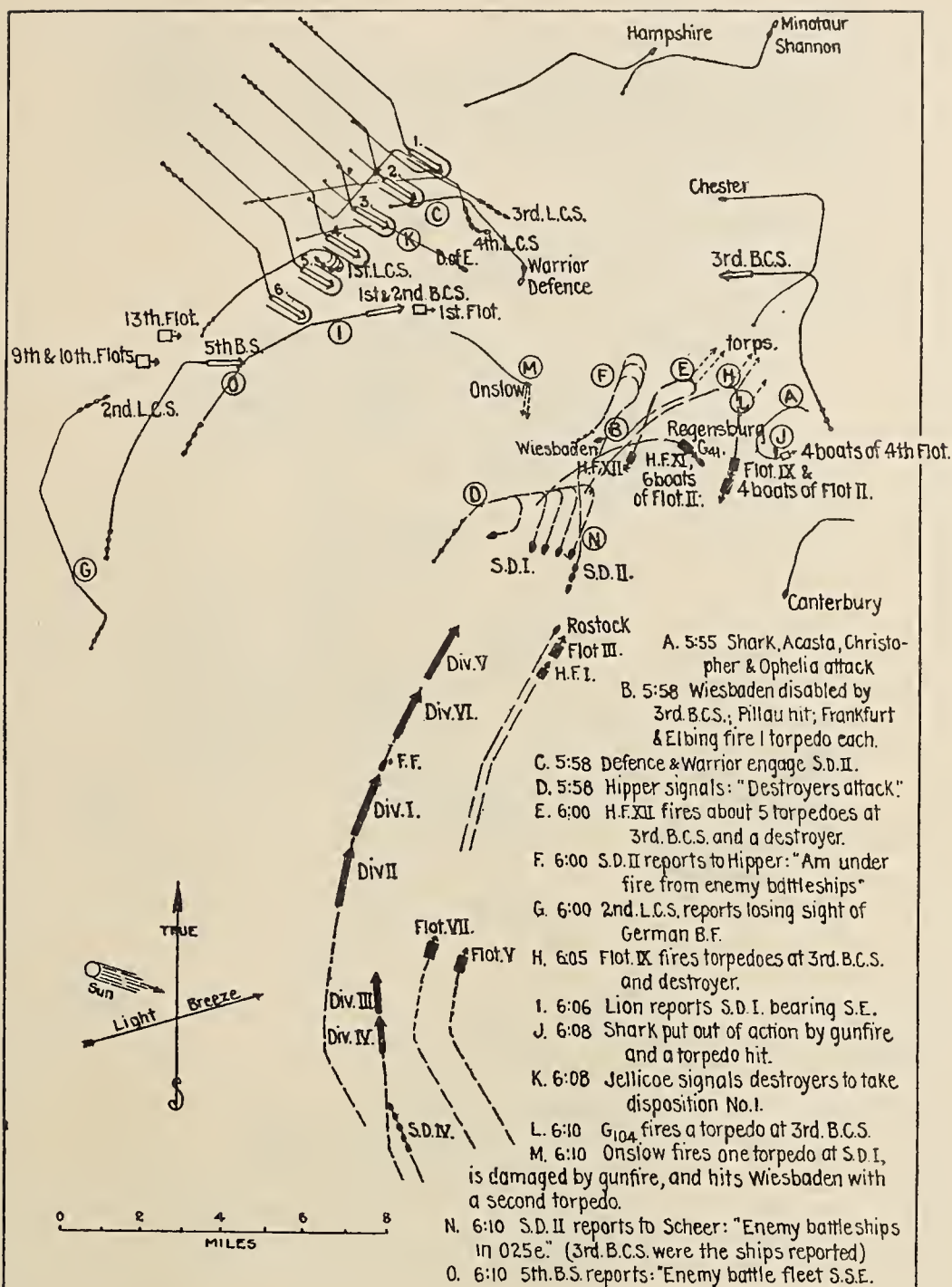
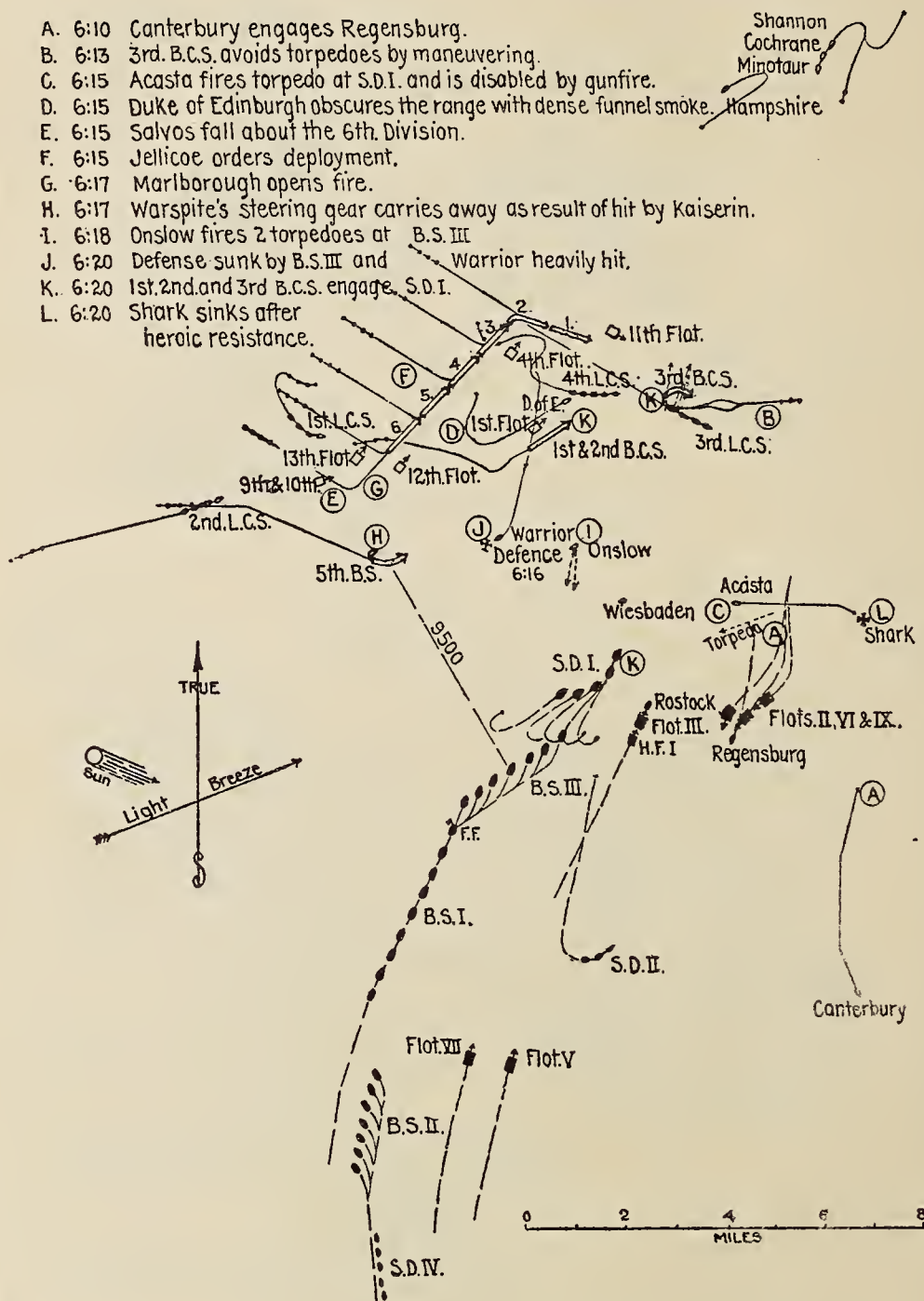


FIGURE 27

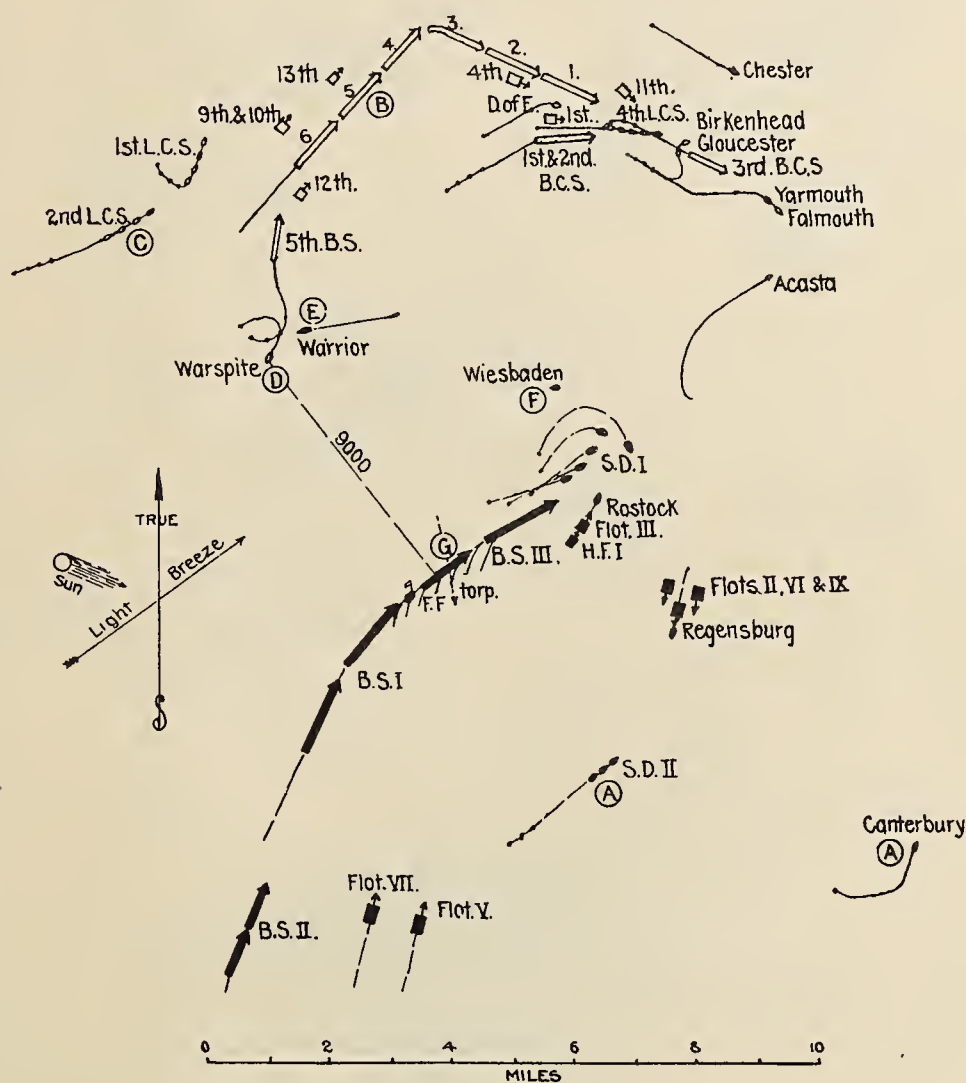
- A. 6:10 Canterbury engages Regensburg.
- B. 6:13 3rd B.C.S. avoids torpedoes by maneuvering.
- C. 6:15 Acasta fires torpedo at S.D.I. and is disabled by gunfire.
- D. 6:15 Duke of Edinburgh obscures the range with dense funnel smoke.
- E. 6:15 Salvos fall about the 6th Division.
- F. 6:15 Jellicoe orders deployment.
- G. 6:17 Marlborough opens fire.
- H. 6:17 Warspite's steering gear carries away as result of hit by Kaiserin.
- I. 6:18 Onslow fires 2 torpedoes at B.S. III.
- J. 6:20 Defense sunk by B.S. III and Warrior heavily hit.
- K. 6:20 1st, 2nd, and 3rd B.C.S. engage S.D.I.
- L. 6:20 Shark sinks after heroic resistance.



DEPLOYMENT OF BRITISH BATTLE FLEET.
6:10 TO 6:20

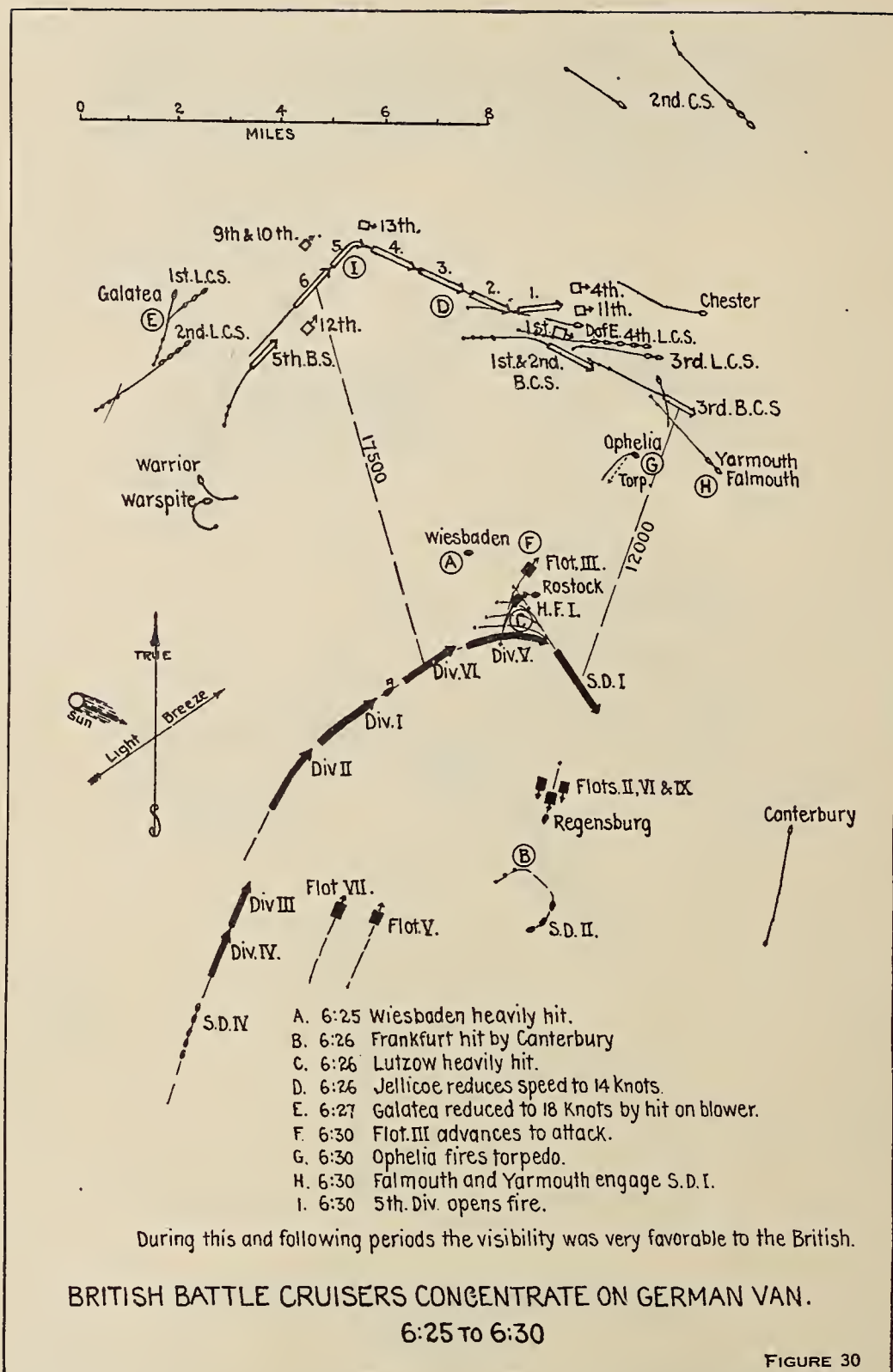
- A. 6:22 Canterbury engages S.D.II.
- B. 6:24 4th. Division opens fire.
- C. 6:24 2nd. L.C.S. reports position and course of German B.F.
- D. 6:25 Warspite hit by at least 11 heavy shells in 20 minutes.
- E. 6:25 Warrior out of action with at least 15 heavy hits
- F. 6:25 Wiesbaden heavily hit.
- G. 6:25 Onslow's torpedo passes Kaiser

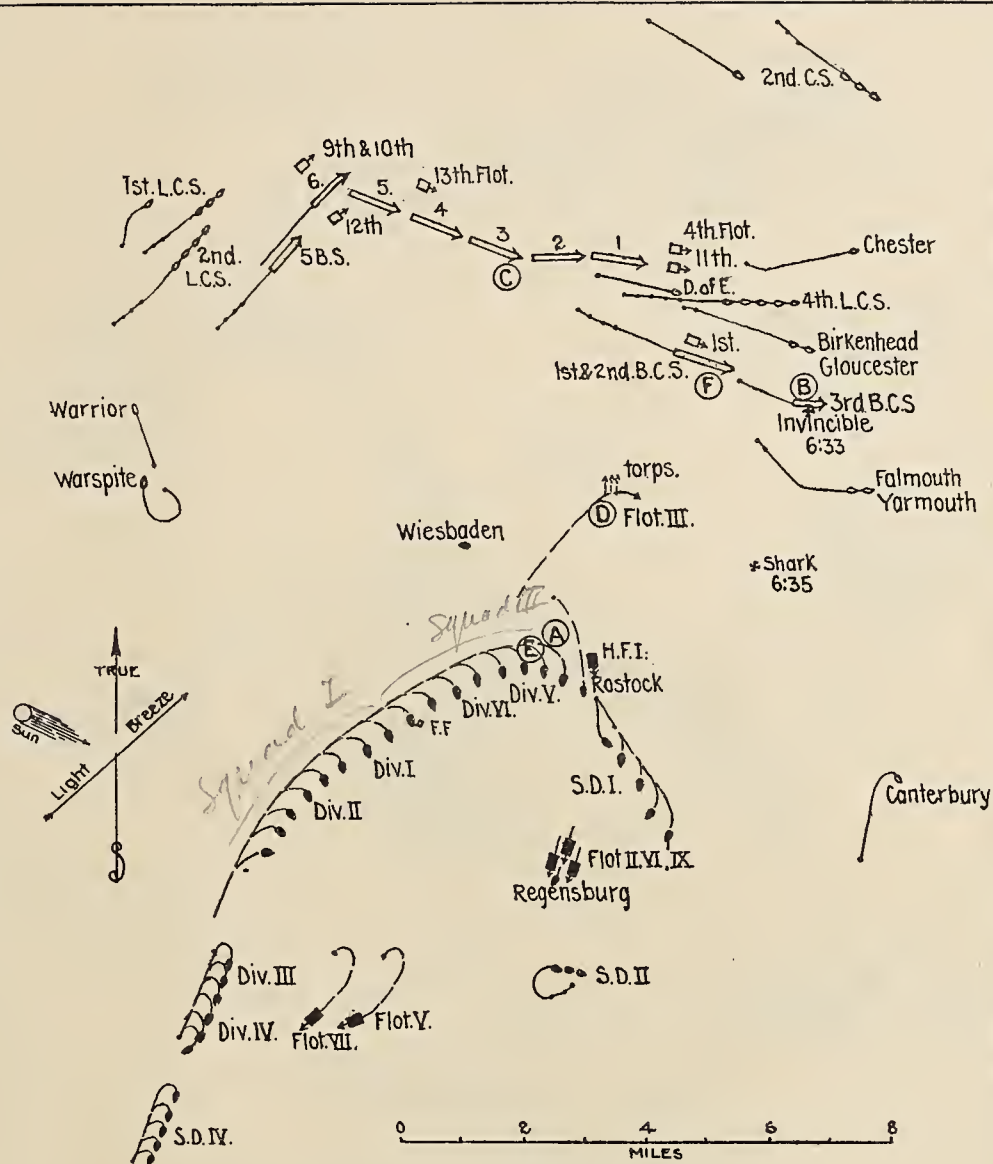
2nd.C.S.
Shannon
Cochrane
Minotaur
Hampshire



BRITISH BATTLE FLEET OPENS FIRE.
6:20 TO 6:25

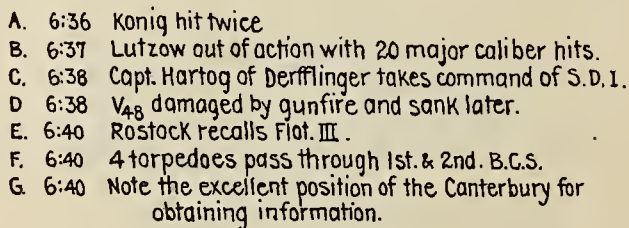
FIGURE 29





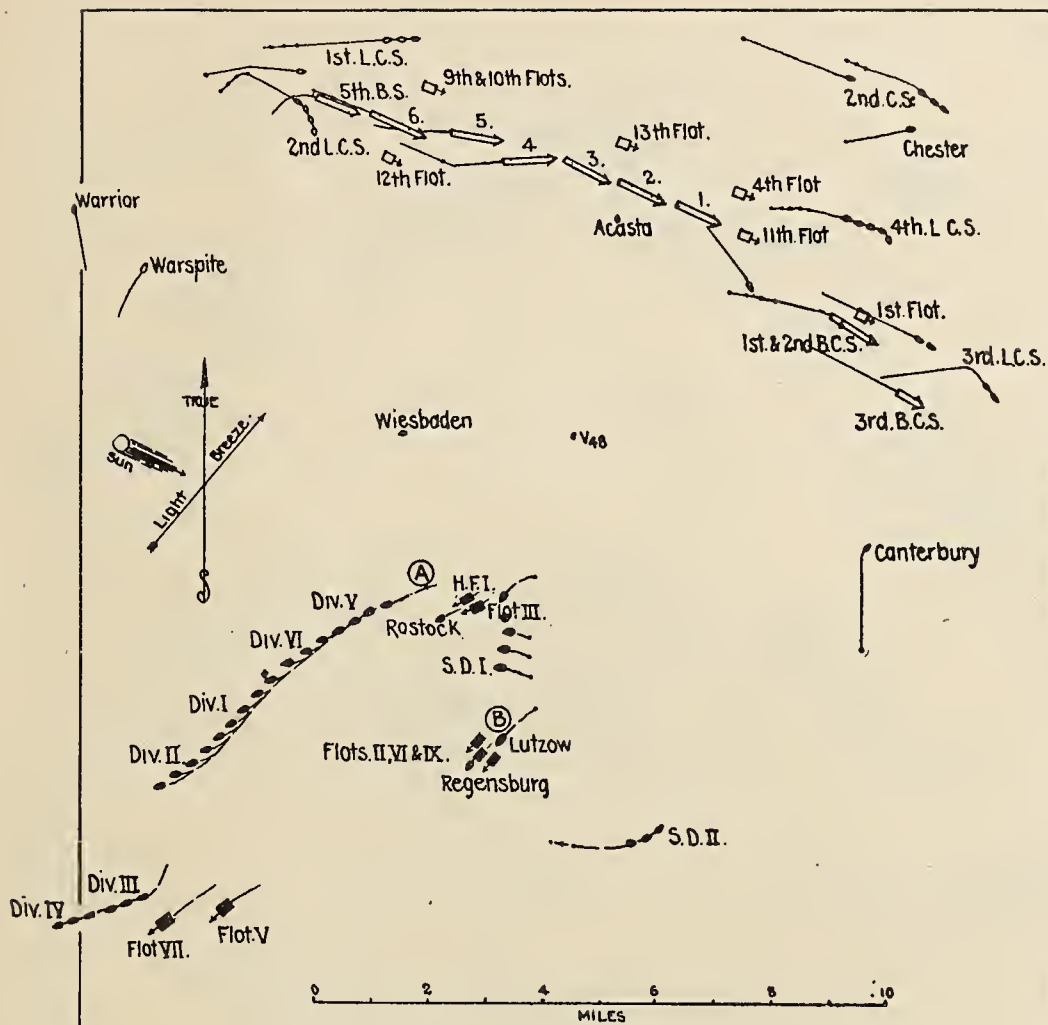
- A. 6:32 König hit twice in two minutes.
- B. 6:33 Invincible sunk by Lutzow and Derfflinger.
- C. 6:33 Jellicoe increases speed to 17 knots.
- D. 6:35 Flot. III fires 3 torpedoes and lays smoke screen.
- E. 6:35 Markgraf stops one engine due to hot bearings; also receives 1 hit.
- F. 6:35 Beatty slows to 15 knots.

FIGURE 31

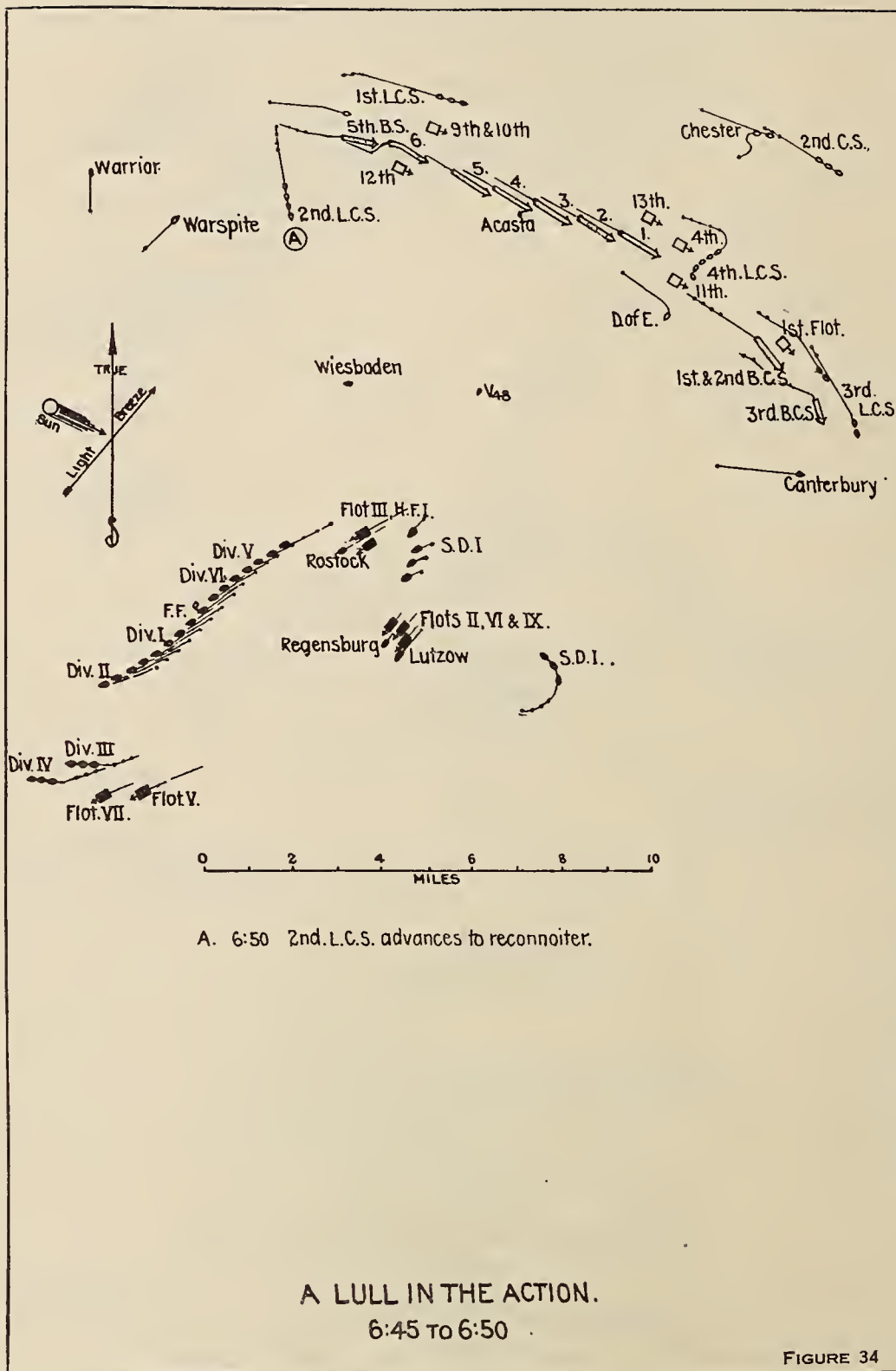


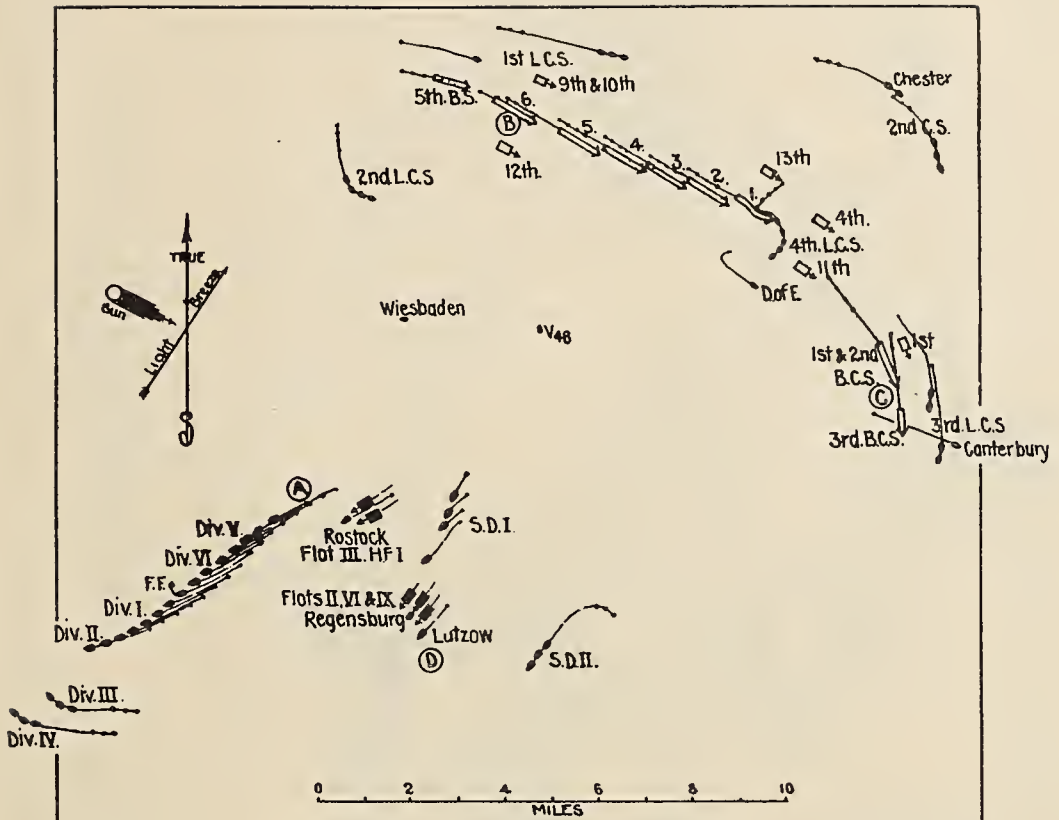
6:35 to 6:40.

FIGURE 32



DISENGAGEMENT OF THE HIGH SEA FLEET.
6:40 TO 6:45





- A. 6:52 Markgraf hit.
- B. 6:54 Marlborough hit by torpedo, probably fired by V48 or Wiesbaden
- C. 6:54 Beatty reports submarine
- D. 6:55 Rostock orders H.F.I. to escort Lutzow; latter's speed is reduced to 15 knots.

MARLBOROUGH TORPEDOED.
6:50 TO 6:55

FIGURE 35

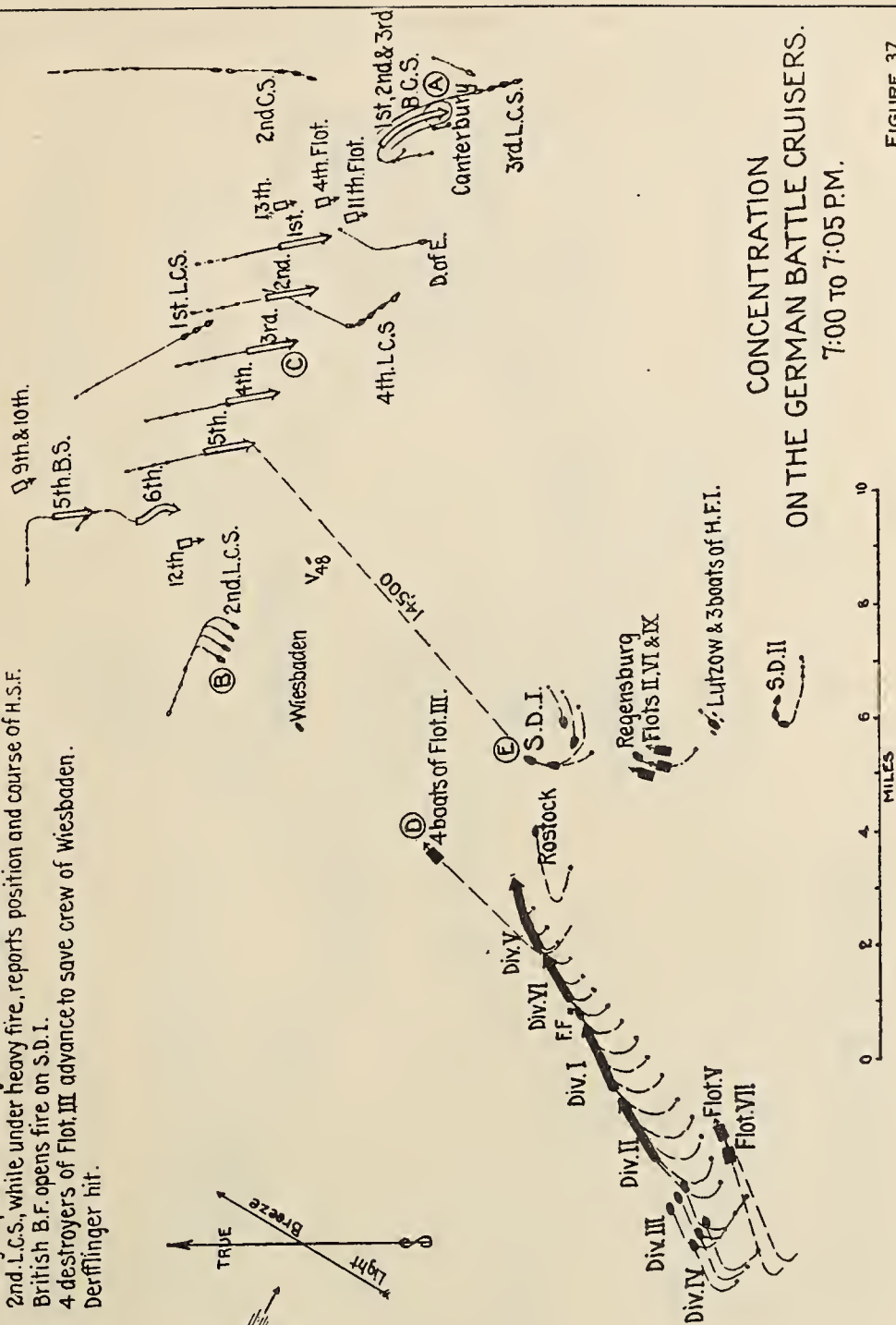
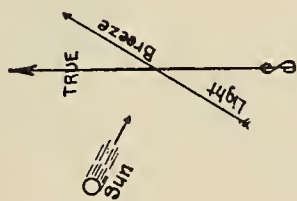
A. 7:00 Beatty reports: "Enemy are to westward."

B. 7:00 2nd L.C.S., while under heavy fire, reports position and course of H.S.F.

C. 7:00 British B.F. opens fire on S.D.I.

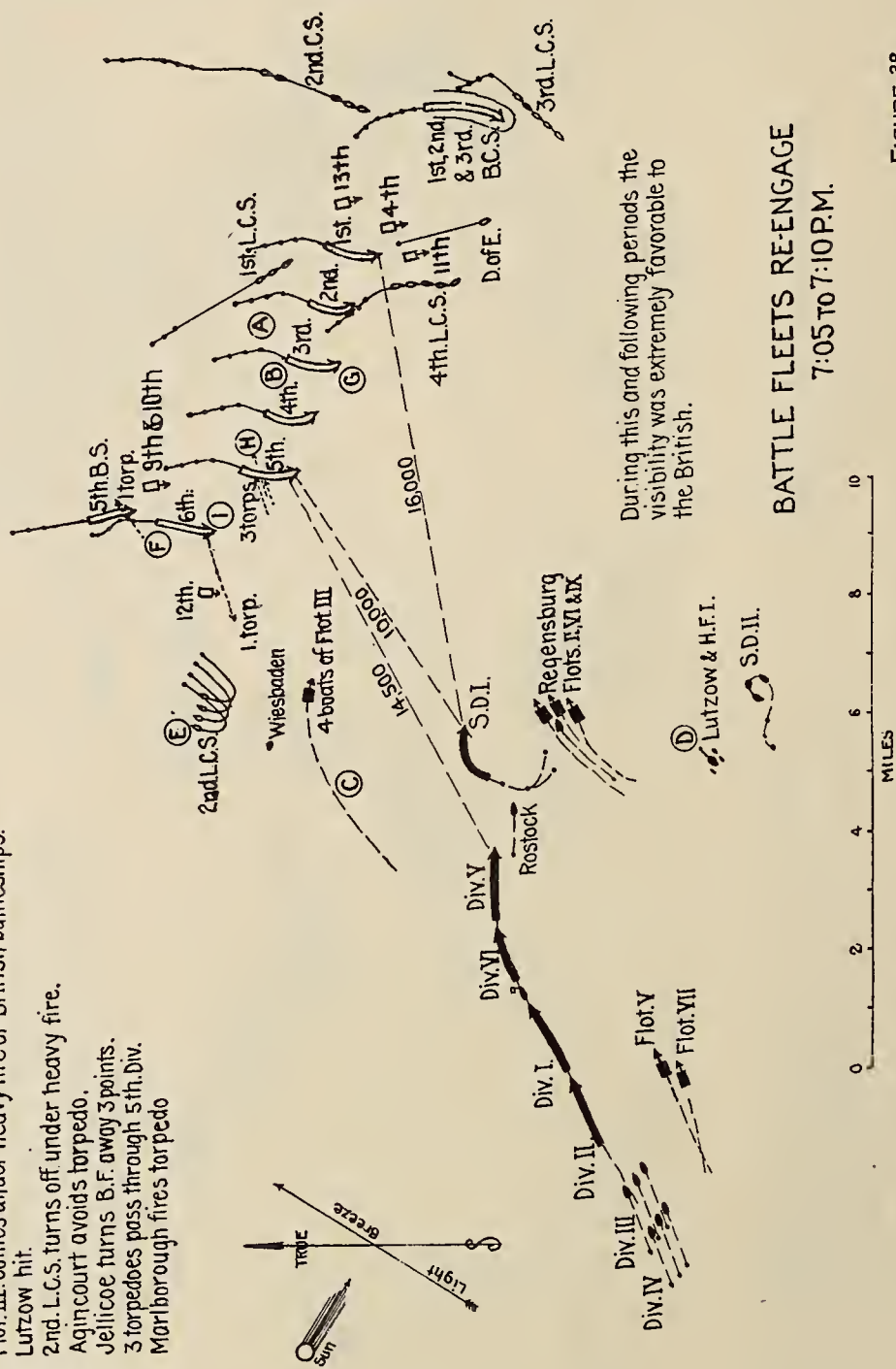
D. 7:00 4 destroyers of Flot.III advance to save crew of Wiesbaden.

E. 7:04 Derfflinger hit.

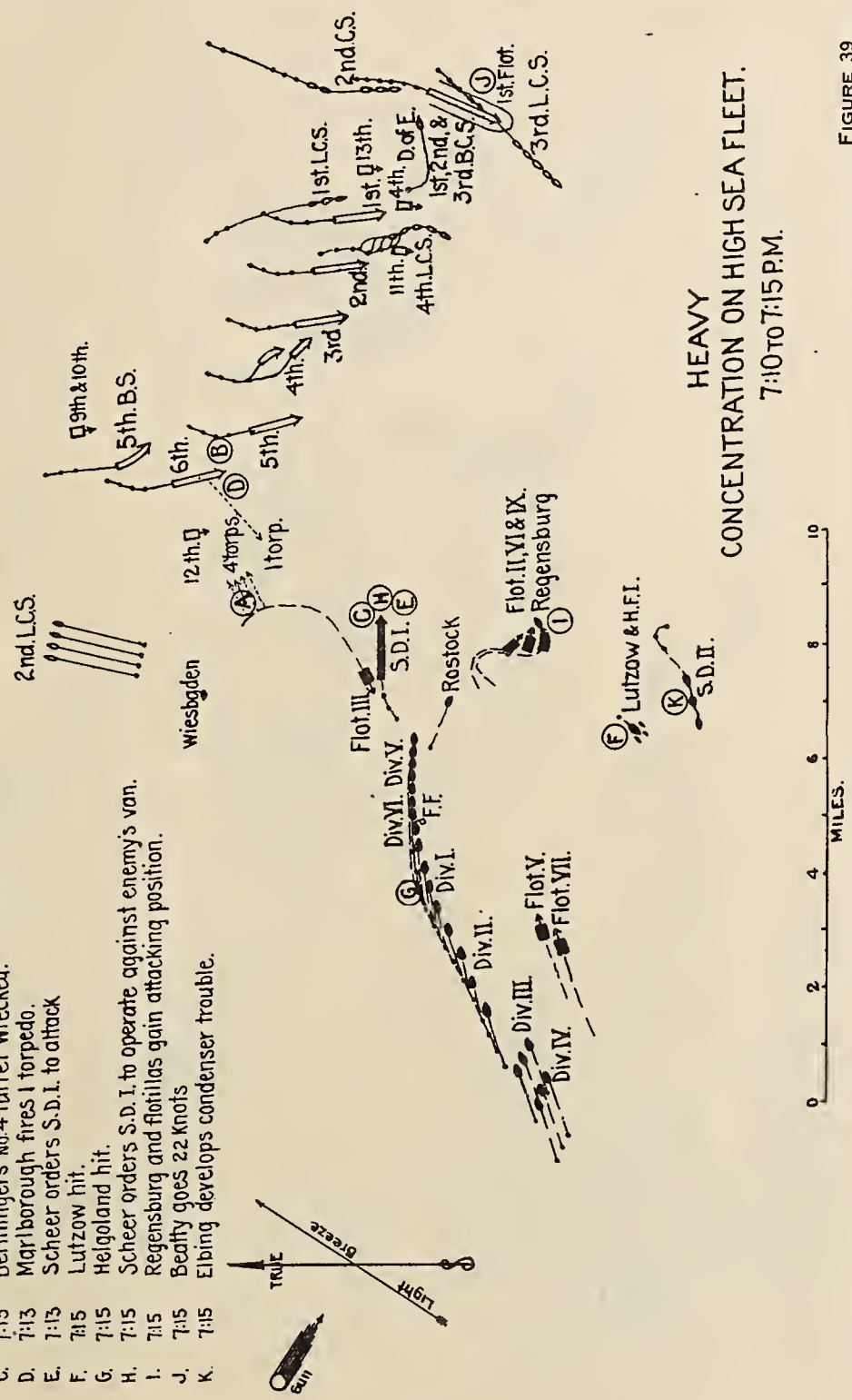


CONCENTRATION
ON THE GERMAN BATTLE CRUISERS.
7:00 TO 7:05 P.M.

- A. 7:05 Jellicoe turns B.F. 3 points toward the enemy.
 B. 7:06 Vessels of the British B.F. open fire on German B.F.
 C. 7:07 Flot III. comes under heavy fire of British battleships.
 D. 7:08 Lutzow hit.
 E. 7:08 2nd L.C.S. turns off under heavy fire.
 F. 7:08 Agincourt avoids torpedo.
 G. 7:09 Jellicoe turns B.F. away 3 points.
 H. 7:10 3 torpedoes pass through 5th Div.
 I. 7:10 Marlborough fires torpedo

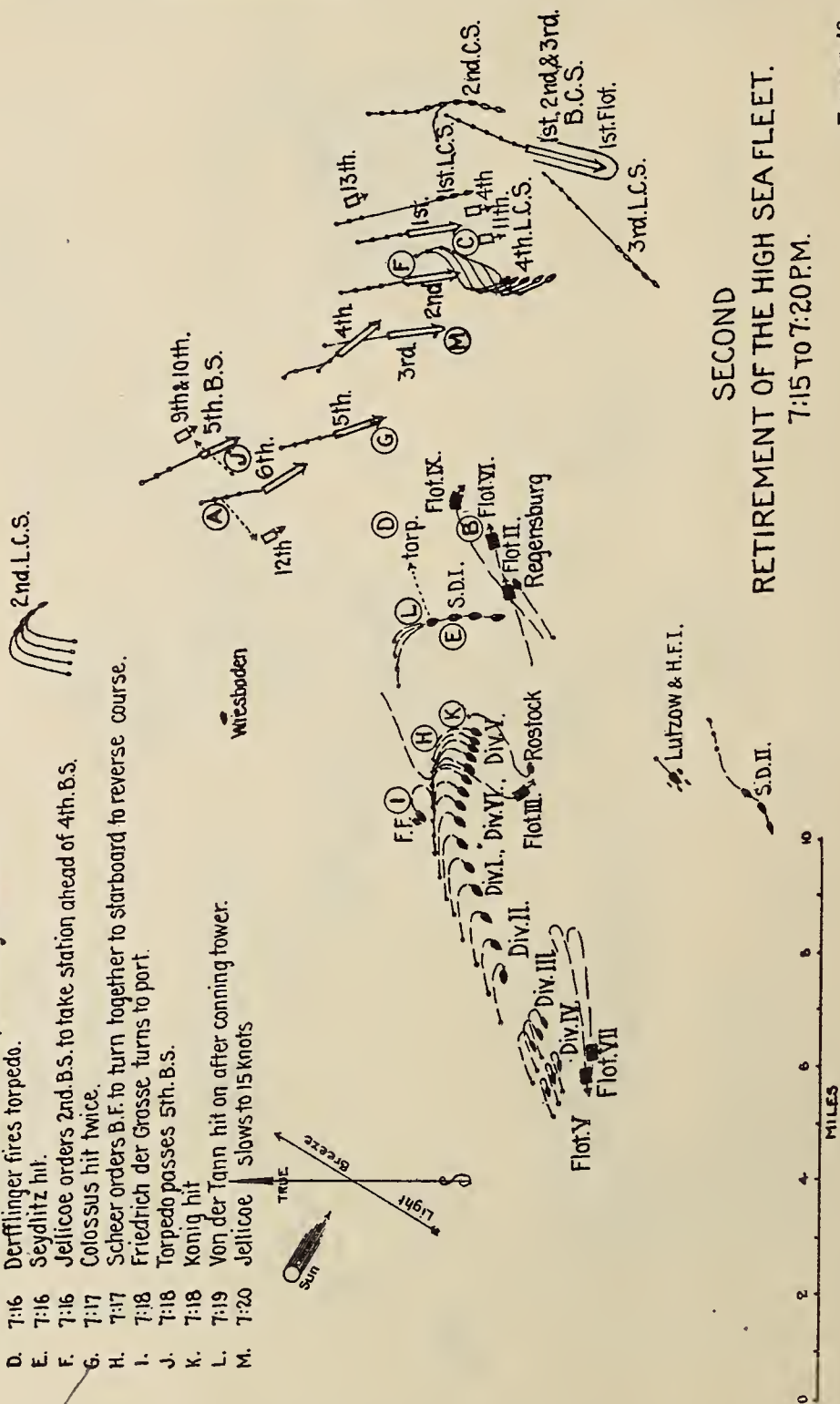


- A. 7:10 Flot. III fires 4 torpedoes
- B. 7:12 Jellicoe orders 1st B.S. to take station astern of 4th B.S.
- C. 7:13 Derfflingers No. 4 turret wrecked.
- D. 7:13 Marlborough fires 1 torpedo.
- E. 7:13 Scheer orders S.D.I. to attack
- F. 7:15 Lutzow hit.
- G. 7:15 Helgoland hit.
- H. 7:15 Scheer orders S.D. I. to operate against enemy's van.
- I. 7:15 Regensburg and flotillas gain attacking position.
- J. 7:15 Beatty goes 22 knots
- K. 7:15 Elbing develops condenser trouble.

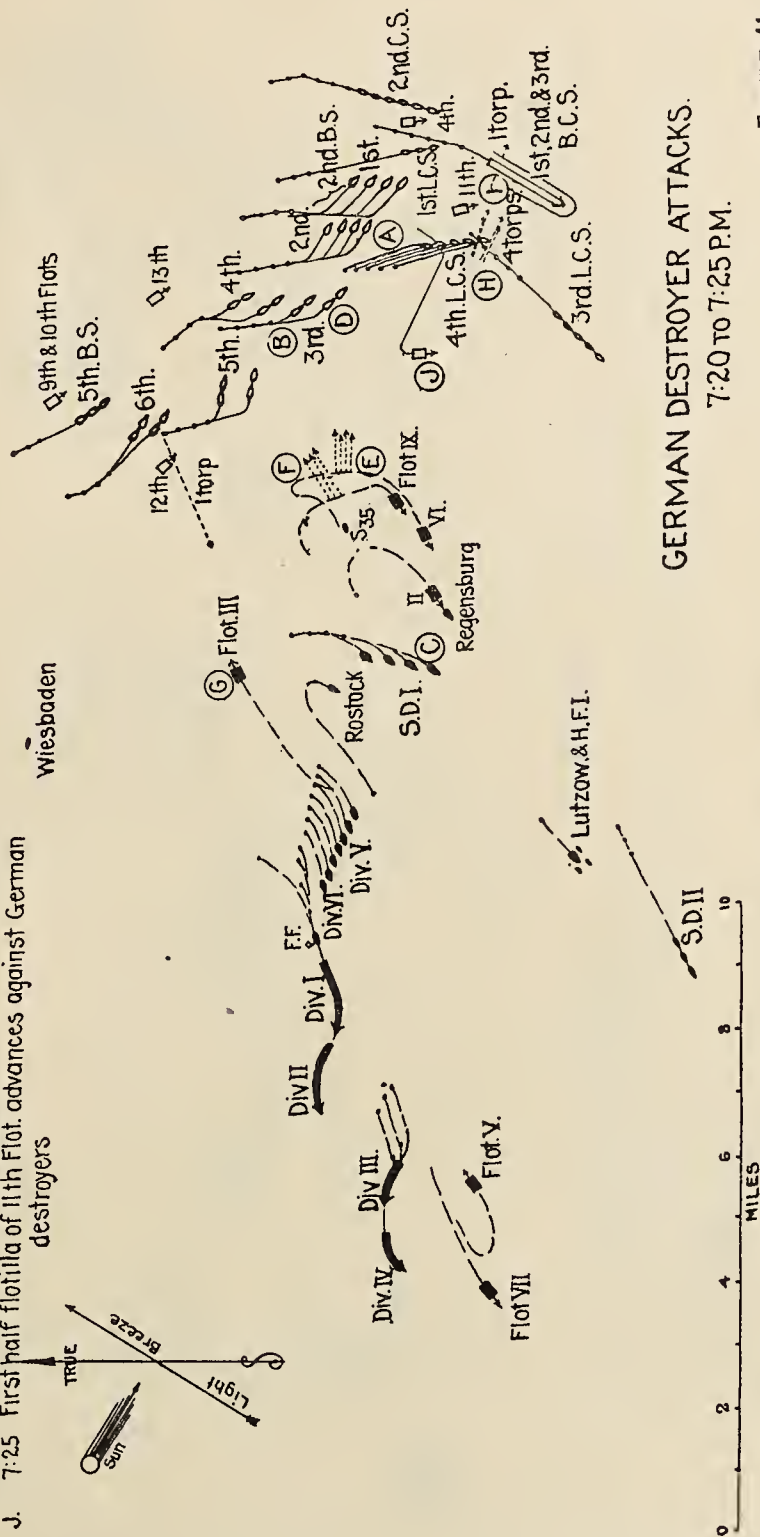


HEAVY
CONCENTRATION ON HIGH SEA FLEET.
7:10 TO 7:15 P.M.

- A. 7:15 Revenge fires 1 torpedo.
 B. 7:15 Flotillas VI and IX advance to the attack.
 C. 7:15 4th. L.C.S. advances to repel destroyer attack.
 D. 7:16 Derflinger fires torpedo.
 E. 7:16 Seydlitz hit.
 F. 7:16 Jellicoe orders 2nd. B.S. to take station ahead of 4th. B.S.
 G. 7:17 Colossus hit twice.
 H. 7:17 Scheer orders B.F. to turn together to starboard to reverse course.
 I. 7:18 Friedrich der Grosse turns to port.
 J. 7:18 Torpedo passes 5th. B.S.
 K. 7:18 König hit
 L. 7:19 Von der Tann hit on after conning tower.
 M. 7:20 Jellicoe Slows to 15 knots



- A. 7:21 Jellicoe orders 2nd B.S. to alter course 4 points away.
 B. 7:22 Jellicoe orders entire B.F. to turn 2 points away.
 C. 7:23 Derfflinger's No.3 turret wrecked and conning tower hit.
 D. 7:25 Jellicoe orders entire B.F. to turn 2 more points away.
 E. 7:25 Flot. VI, 4 boats, fires 11 torpedoes; G41 and G86 damaged.
 F. 7:25 Flot. IX, 9 boats, fires 20 torpedoes; S35 sunk, V28 and S51 damaged.
 G. 7:25 Flot. III commences attack.
 H. 7:25 4 torpedoes pass through 4th. L.C.S.
 I. 7:25 1 torpedo misses Indomitable.
 J. 7:25 First half flotilla of 11th Flot. advances against German destroyers



GERMAN DESTROYER ATTACKS.

7:20 TO 7:25 P.M.

- A. 7:26 3 torpedoes pass 5th. Div.
- B. 7:26 Kaiser hit.
- C. 7:27 Seydlitz hit twice.
- D. 7:30 Flot. III, 4 boats, attacks, but only S₅₄ sights British B.F.
This boat later fires 1 torpedo.
- E. 7:30 2 torpedoes pass through 4th. L.C.S.

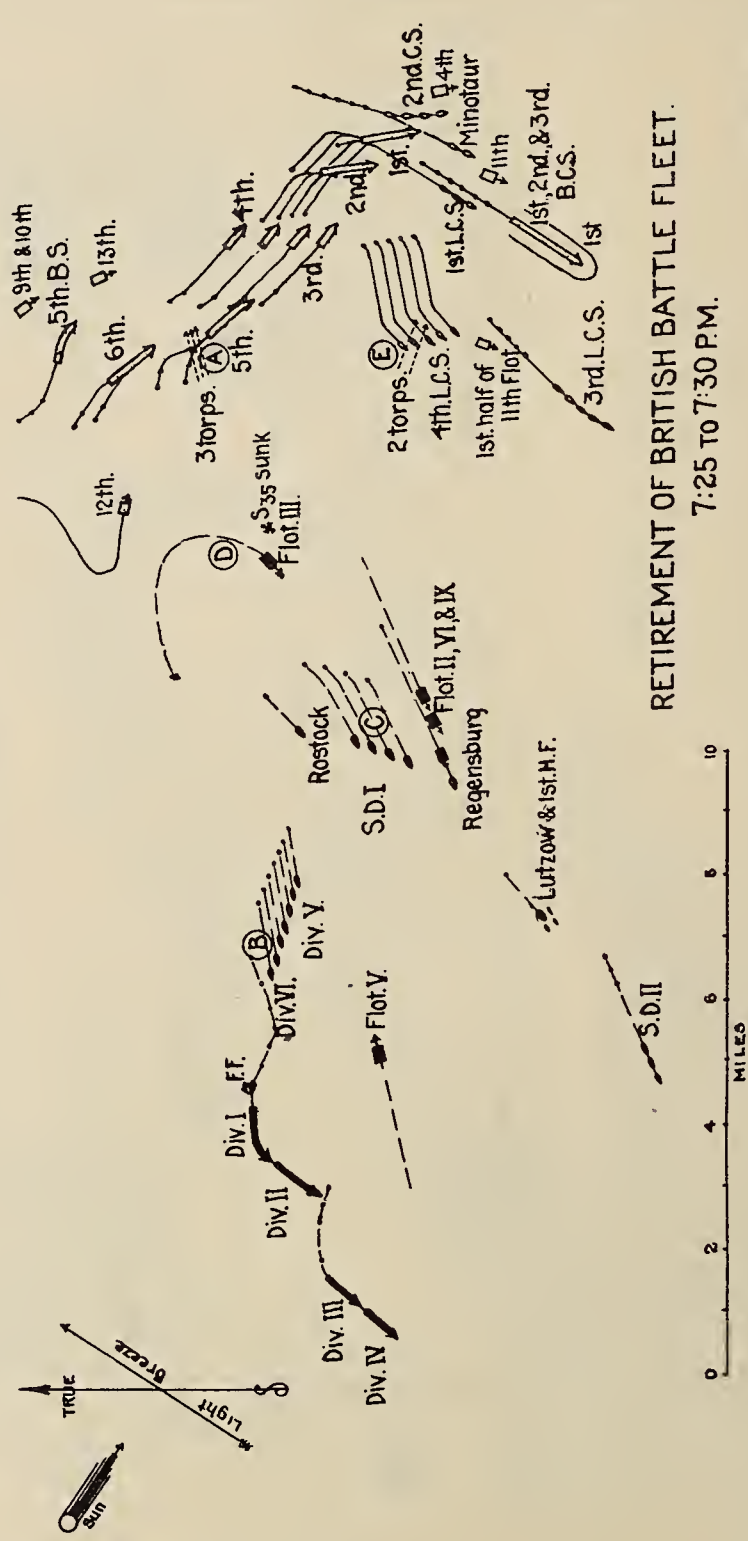
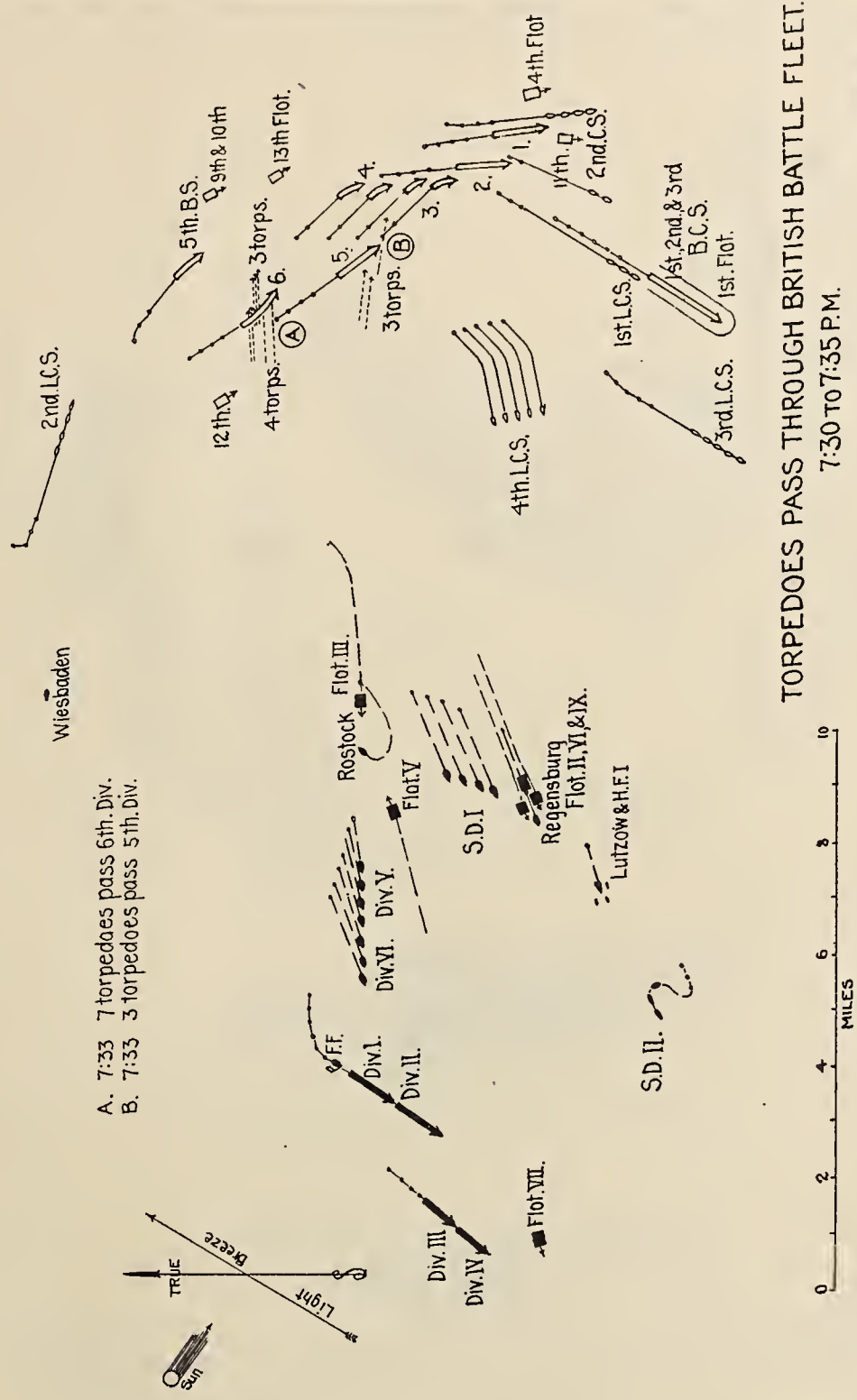
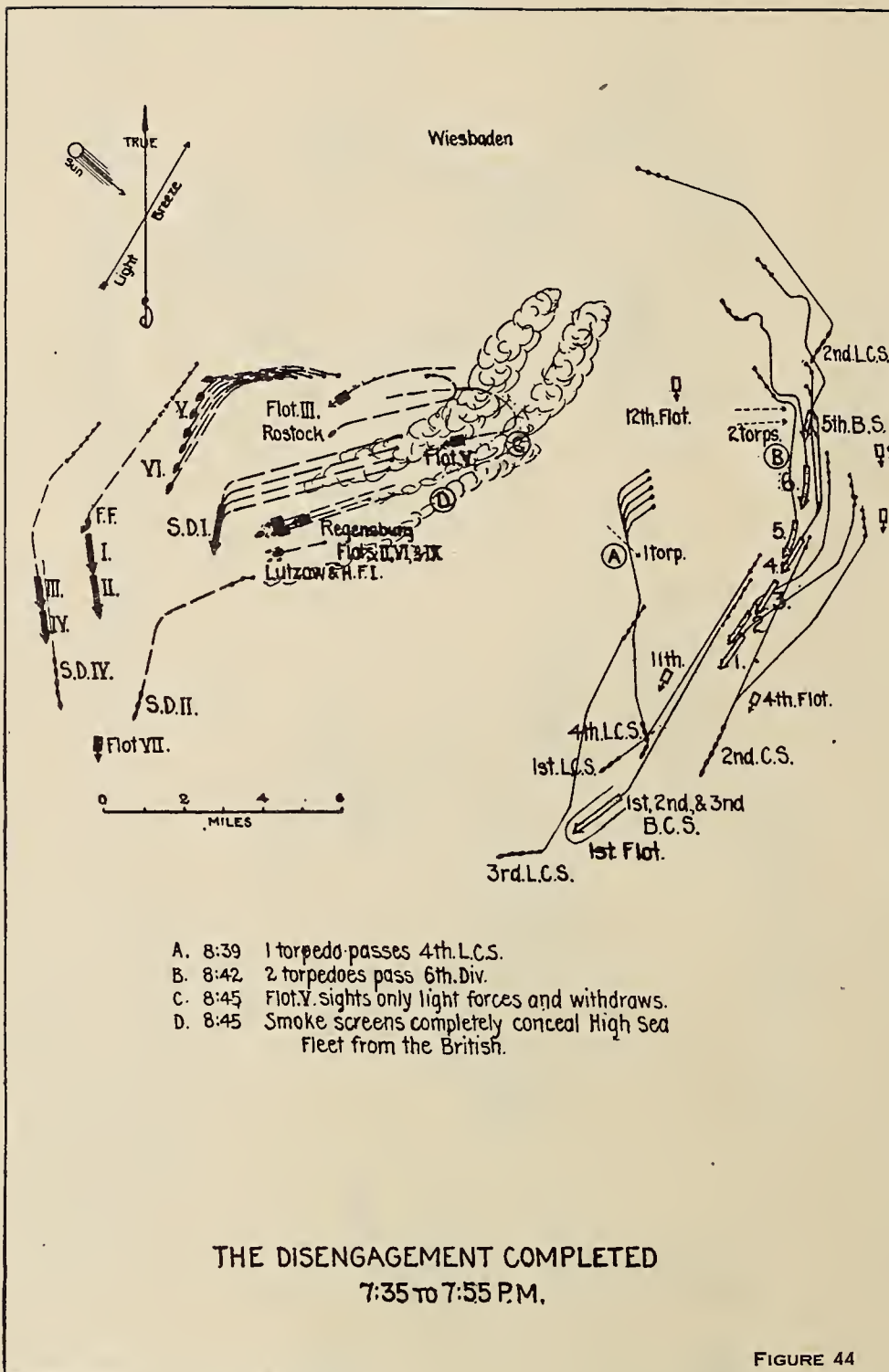
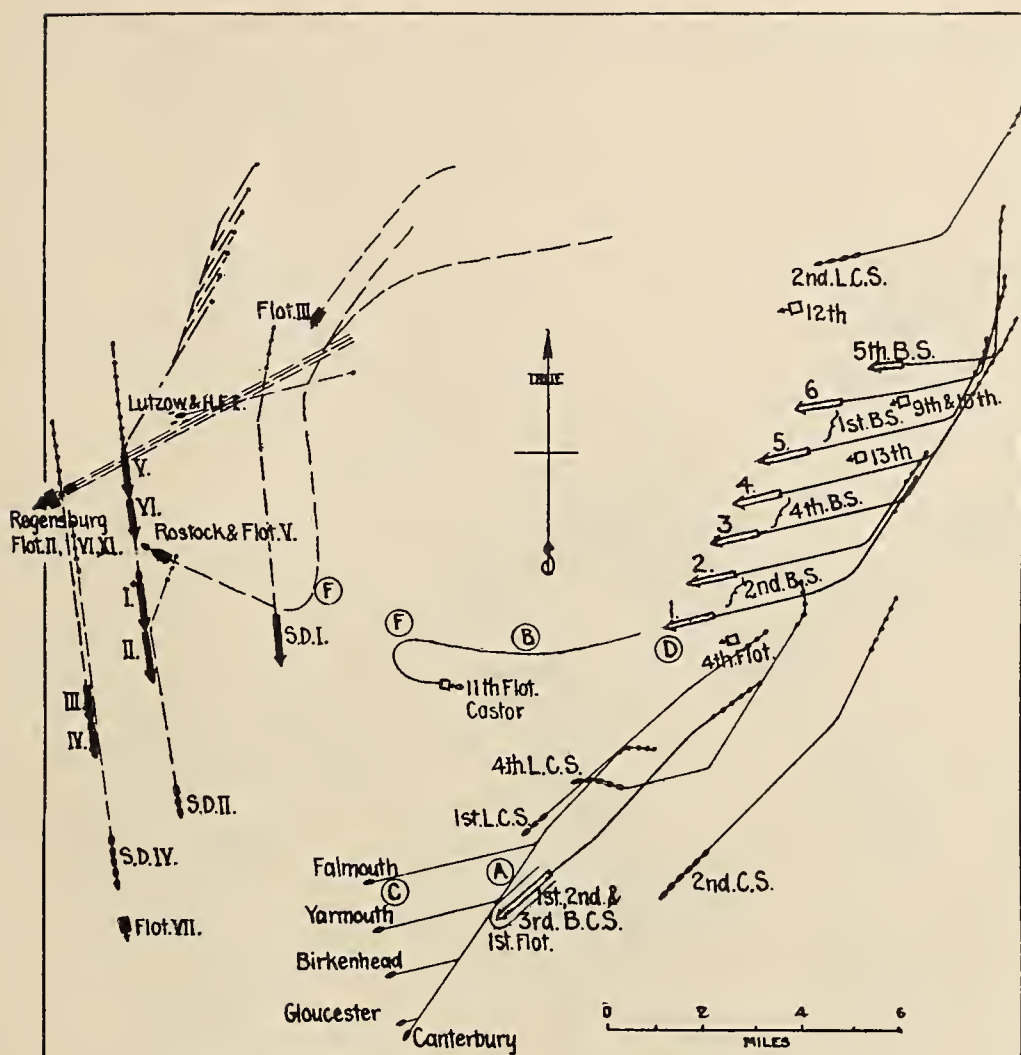


FIGURE 42.



TORPEDOES PASS THROUGH BRITISH BATTLE FLEET.
 7:30 TO 7:35 P.M.





- A. 8:02 Beatty orders 1st. and 3rd. L.C.S. to regain contact.
- B. 8:05 Castor and 11th. Flot. sights smoke to W.N.W.
- C. 8:09 3rd. L.C.S. sights ships W. by N.
- D. 8:14 Jellicoe orders 2nd. B.S. to follow Beatty.
- E. 8:15 Sheer orders all flotillas to attack at night (not shown)
- F. 8:15 Castor sights Flot V.

THE TWO FLEETS AGAIN APPROACH EACH OTHER.
7:55 TO 8:15 P.M.

FIGURE 45

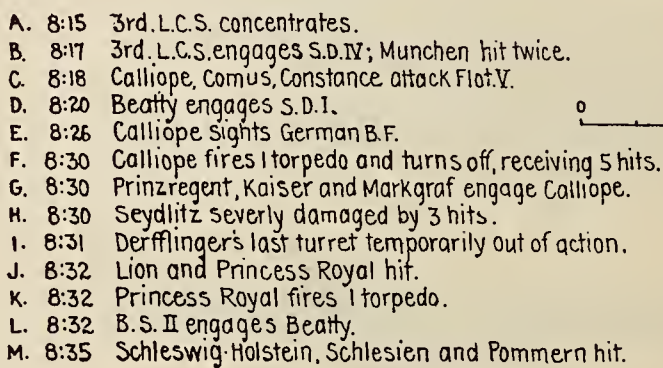
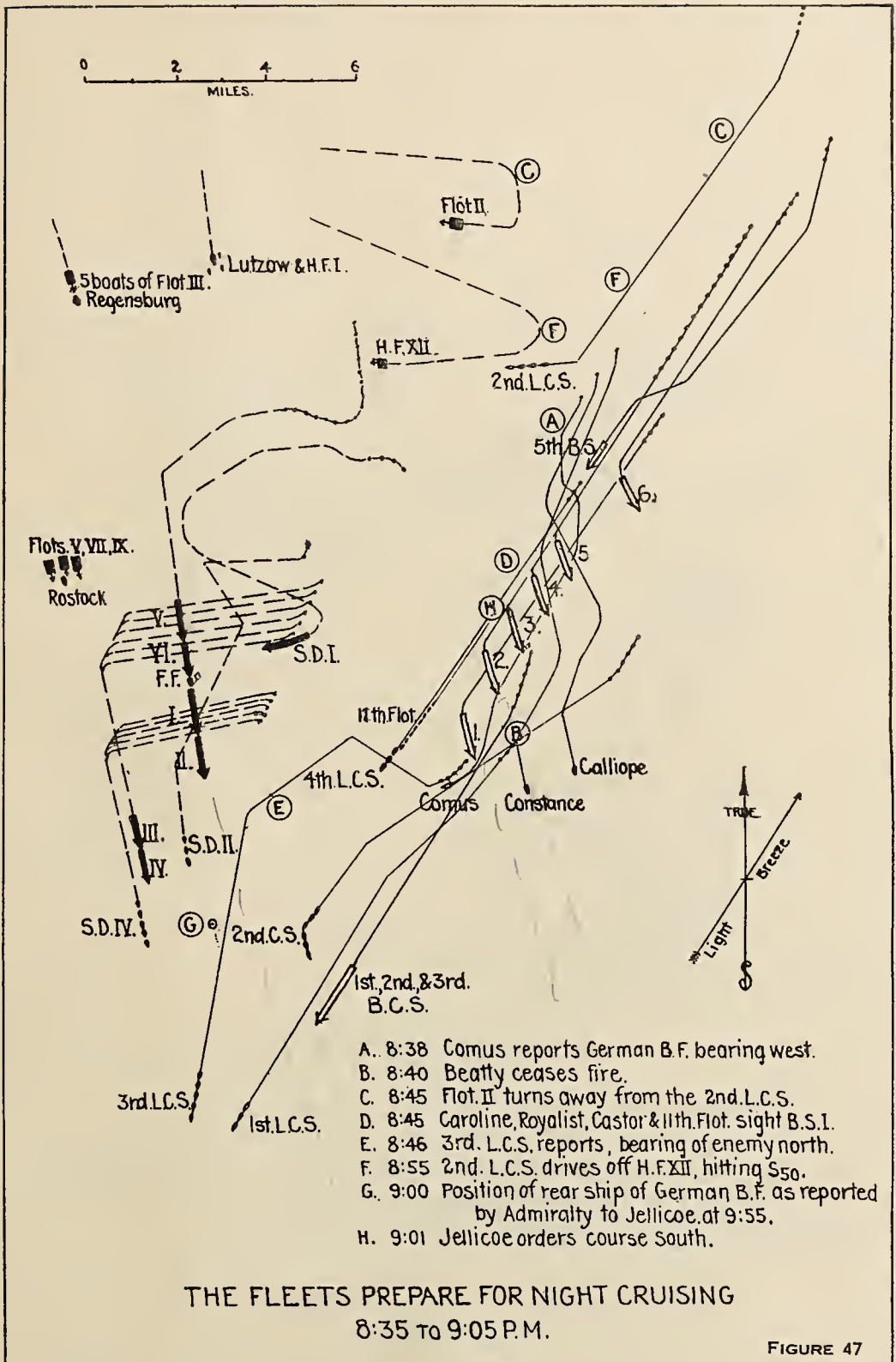
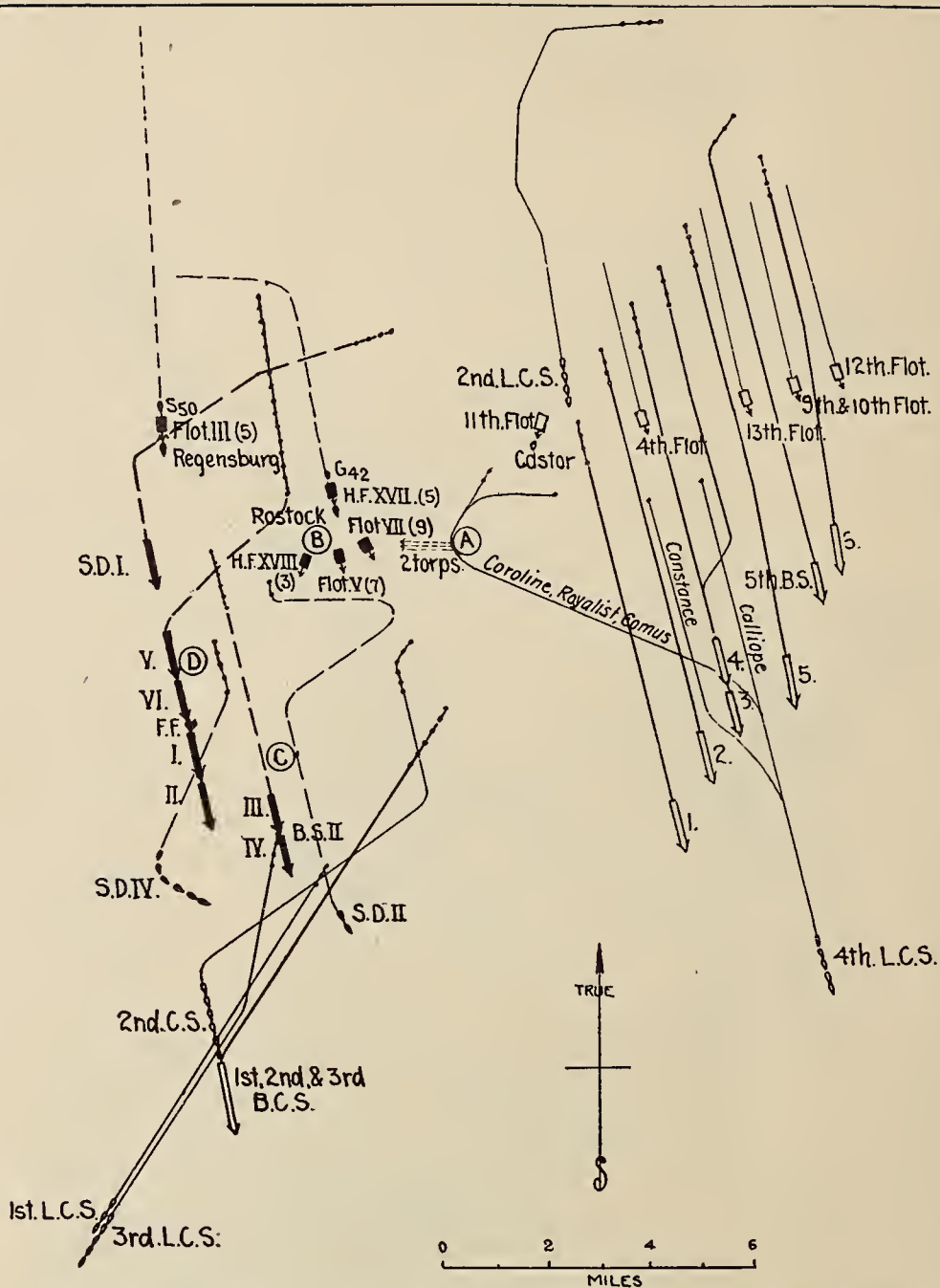


FIGURE 46





- A. 9:07 Royalist, Caroline and Comus attack B.S. I, firing 2 torpedoes, which pass Nassau.
 B. 9:30 Flots. Y and VII and H.F. XVIII commence night search.
 C. 9:30 B.S. II reports 4 enemy vessels ahead, probably 2nd C.S.
 D. 9:30 B.S. III fires on Flot. VII.

BEGINNING OF THE NIGHT CRUISE. 9:05 TO 9:35 P.M.

FIGURE 48

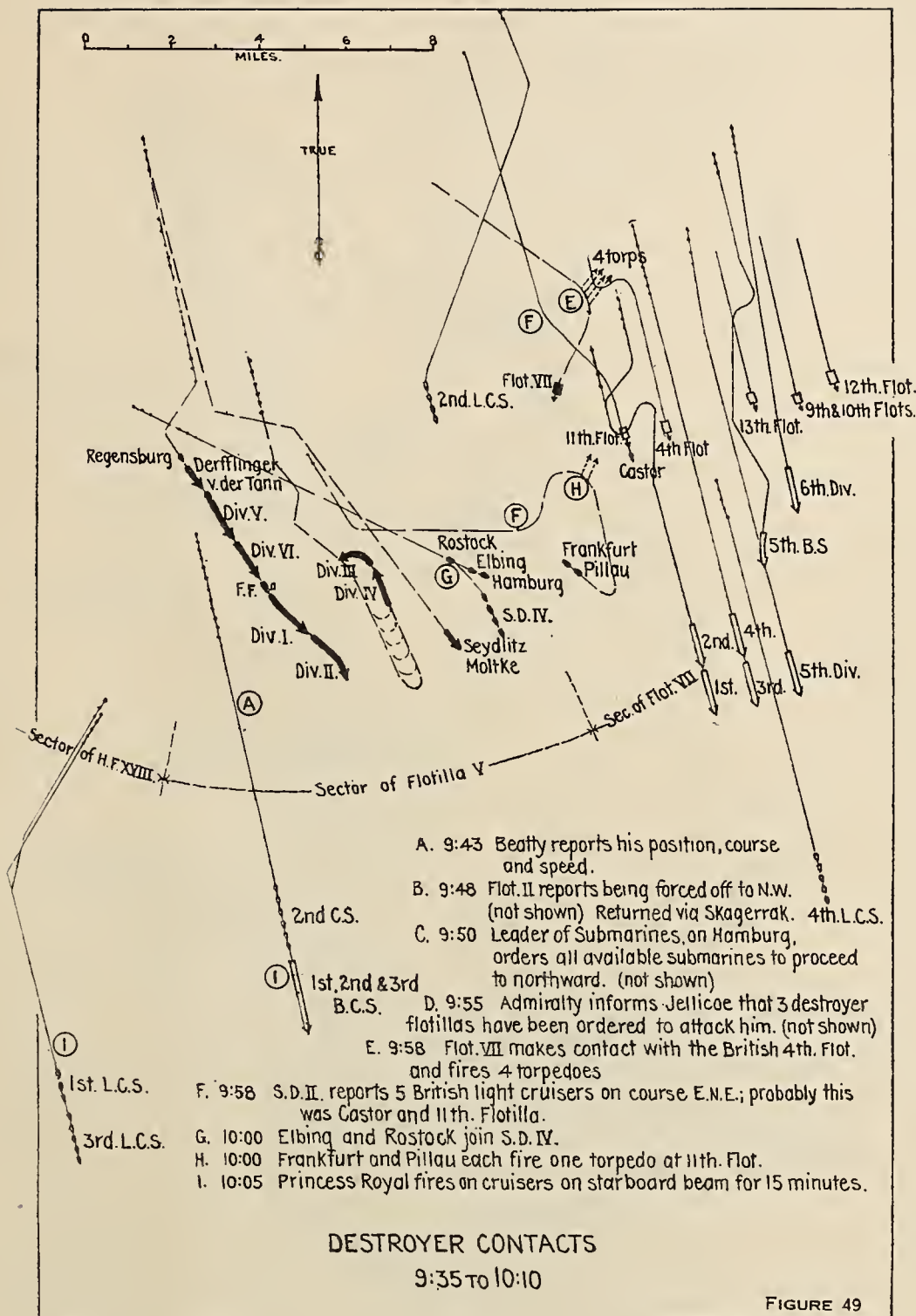
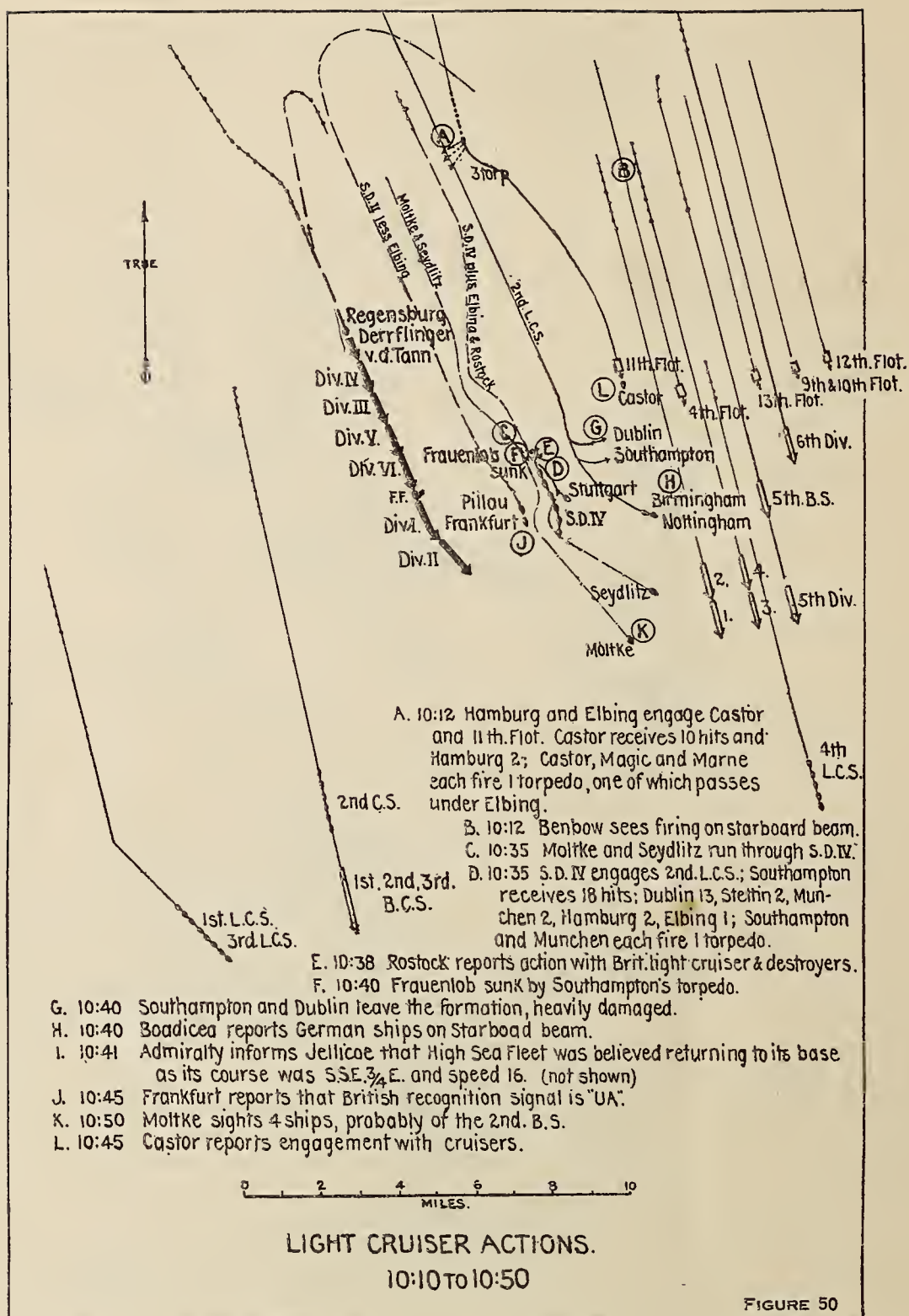
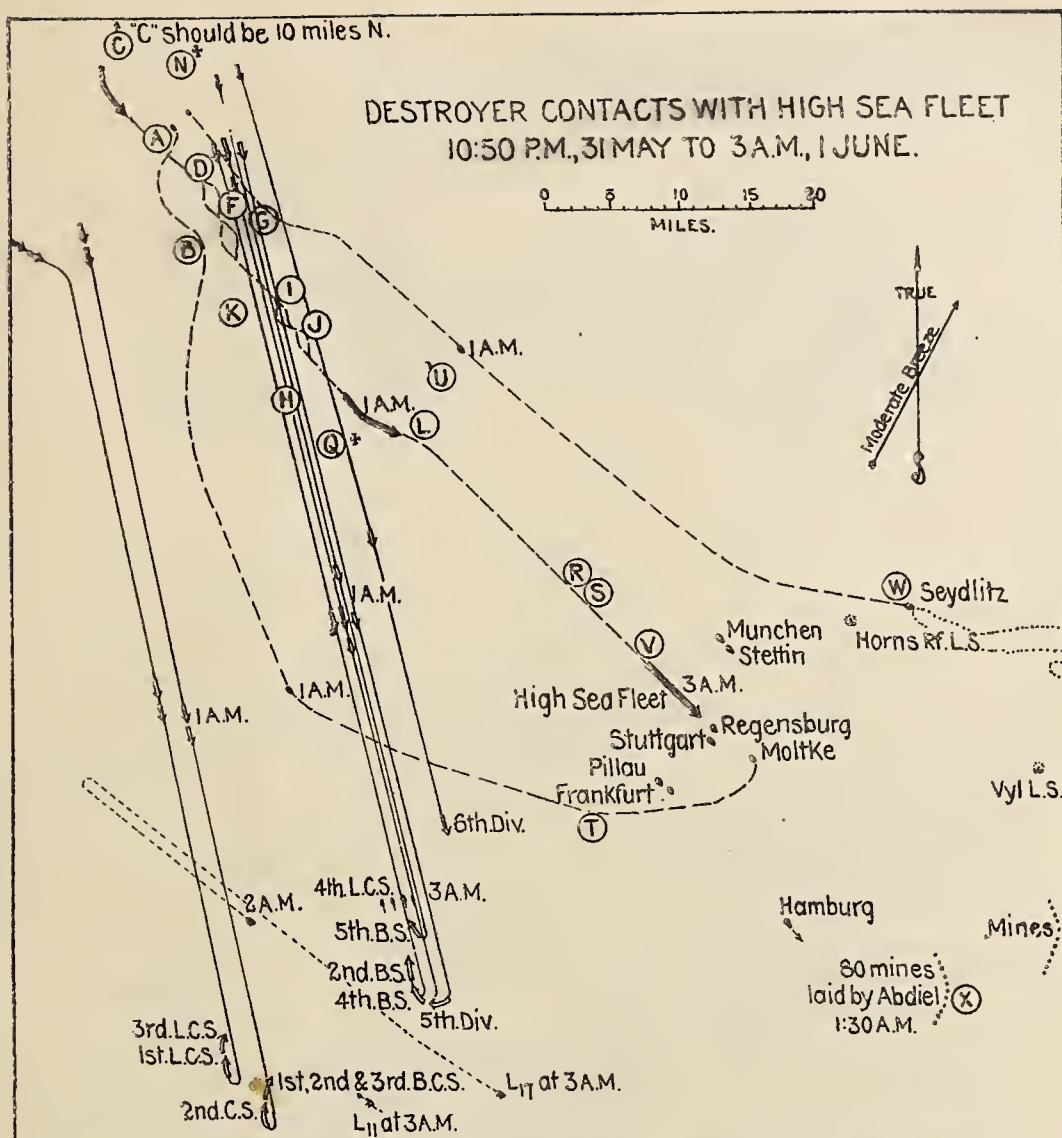


FIGURE 49

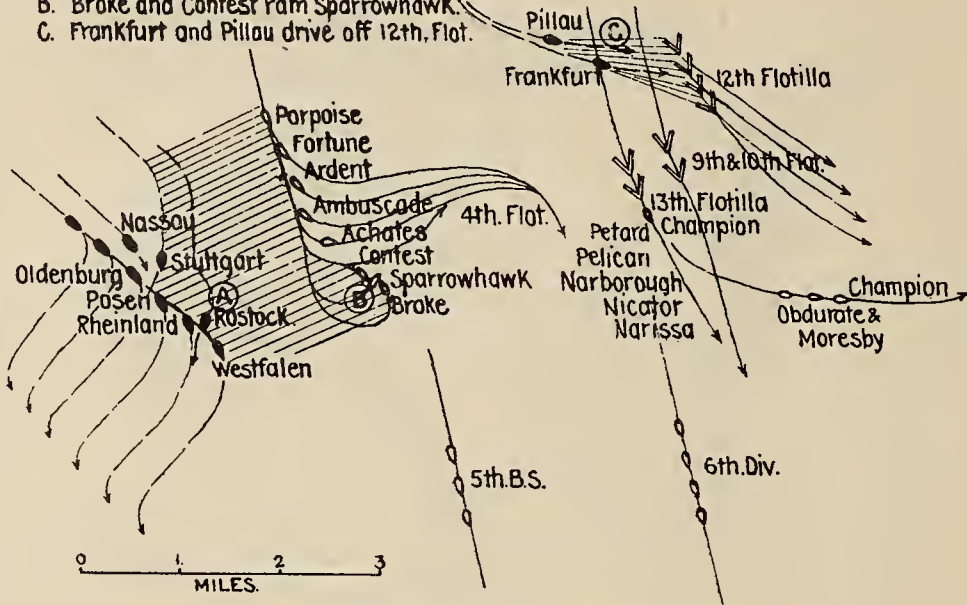




- A.-10:55 Moltke makes contact with British B.F. B.-11:20 Moltke again makes contact.
C.-11:30 Birmingham reports contact with battle cruisers. D.-11:30 First attack by 4th Flotilla (51-A)
E.-11:38 2nd L.C.S. reports engagement with cruisers at 10:15. (not shown)
F.-11:40 Second attack by 4th Flotilla. (51-B). G.-11:45 Seydlitz sights three ships to port and
at 12:08 reports them as battle cruisers; they were probably the 5th B.S.
H.-12:05 Superb observes fire astern until 12:15. I.-12:10 Third attack by 4th Flotilla (51-C)
J.-12:20 Ardent and Black Prince sunk. (51-D) K.-12:25 S₃₅ removes crew of Elbing,
except a small party to destroy ship. L.-12:45 German B.F. makes contact with
thirteen destroyers. (51-E) M.-12:52 Flotilla II reports proceeding through the
Skagerrak. (not shown) N.-1:45 Lutzow sunk by own destroyers.
O.-1:48 Admiralty reports midnight position of a damaged vessel, probably Lutzow. This
position was 13 miles. 330° from position "N" and probably was very accurate.
P.-1:48 Admiralty reports German submarines coming out. (not shown)
Q.-2:00 Elbing sunk by Germans. R.-2:10 Attack by 12th Flotilla. (see 51-F)
S.-2:15 V₄ sunk, cause unknown. T.-2:21 Moltke reports through G₂₉ her contacts with
British B.F. U.-2:30 G₄₀, G₃₈, G₃₇ and V₄₅, carrying Lutzow's crew, engage Contest and
Garland, V₄₅ firing a torpedo. V.-2:40 Moresby fires a torpedo. (see 51-G)
W.-2:40 Seydlitz grounds on Horns Reef. X.-2:54 Abdiel reports having laid minefield.

FIGURE 51

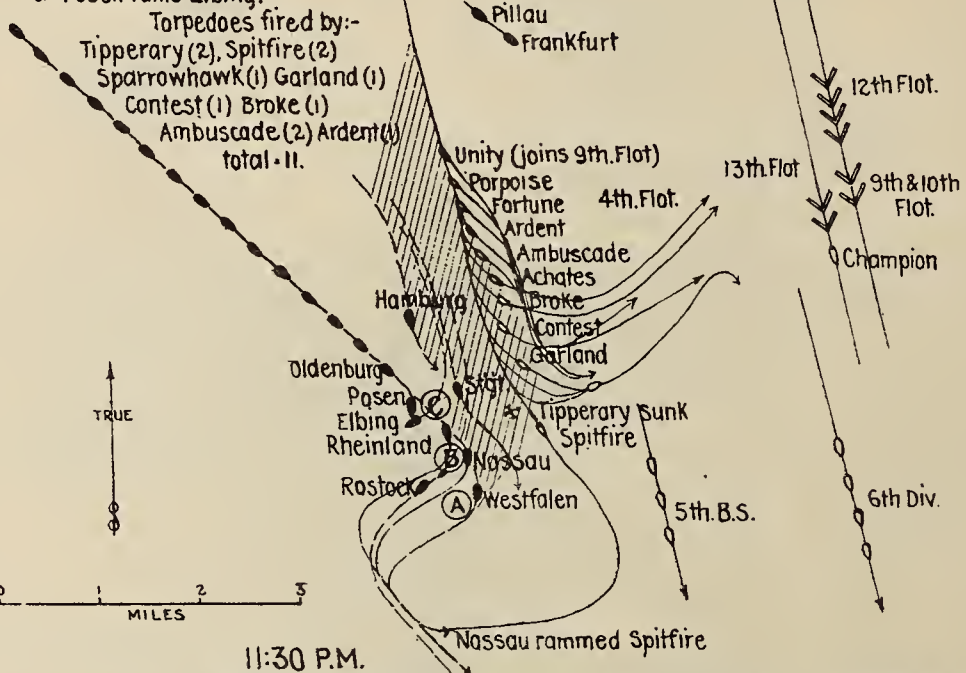
- A. Rostock torpedoed and hit twice by gunfire.
- B. Broke and Contest ram Sparrowhawk.
- C. Frankfurt and Pillau drive off 12th Flot.



SECOND FIGHT WITH THE 4TH FLOTILLA
11:40 P.M.

FIGURE 51-B

- A. Westfalen's signal bridge hit.
- B. Nassau & Rheinland each hit twice.
- C. Posen rams Elbing.



11:30 P.M.
FIRST FIGHT WITH THE 4TH FLOTILLA.

FIGURE 51-A

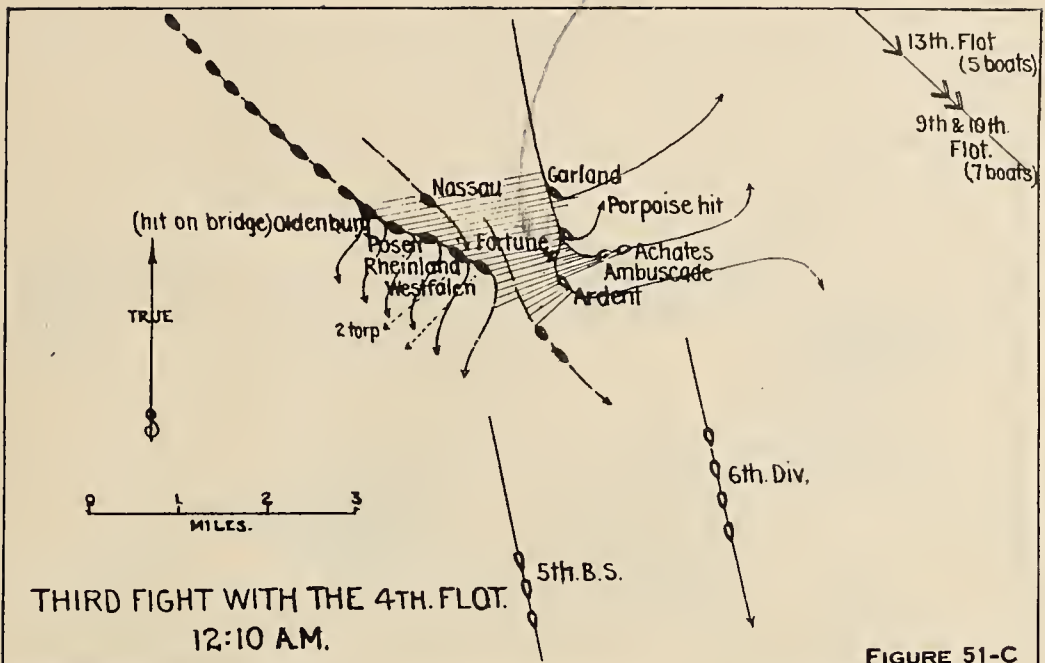


FIGURE 51-C

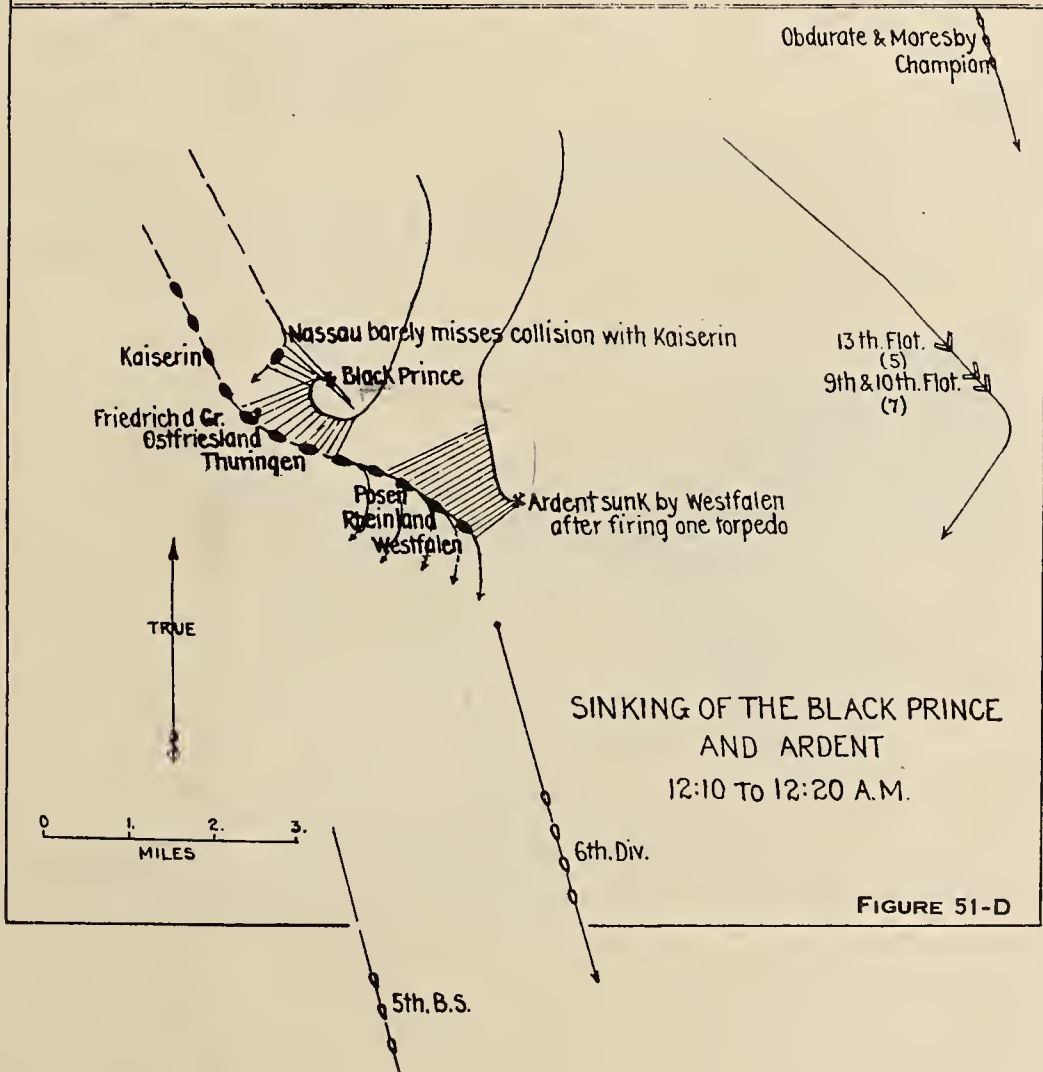
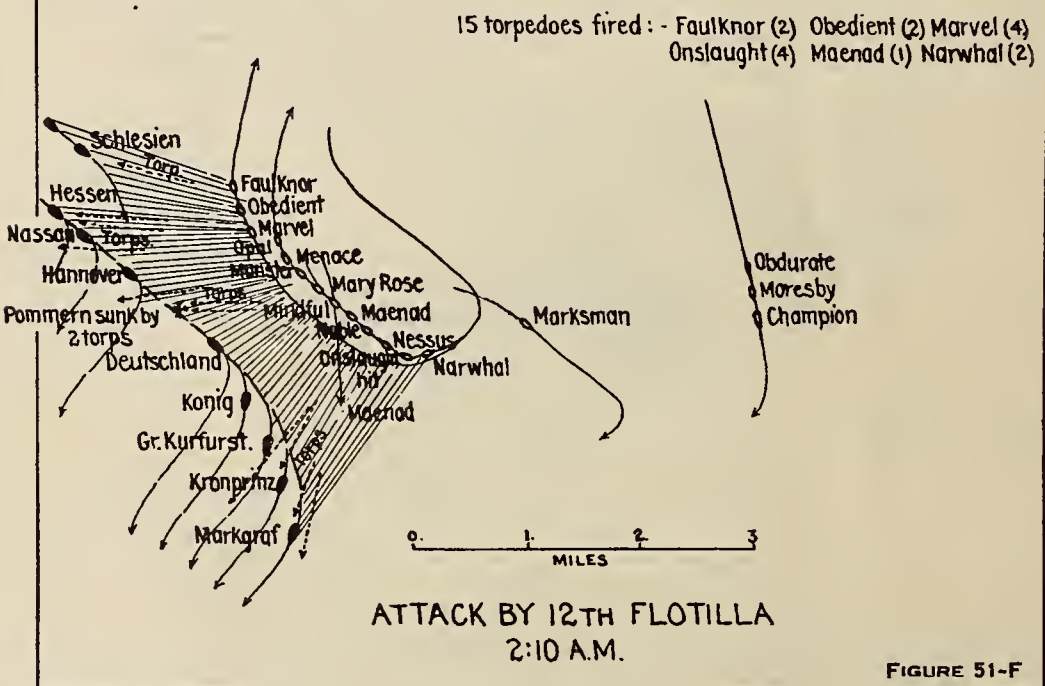
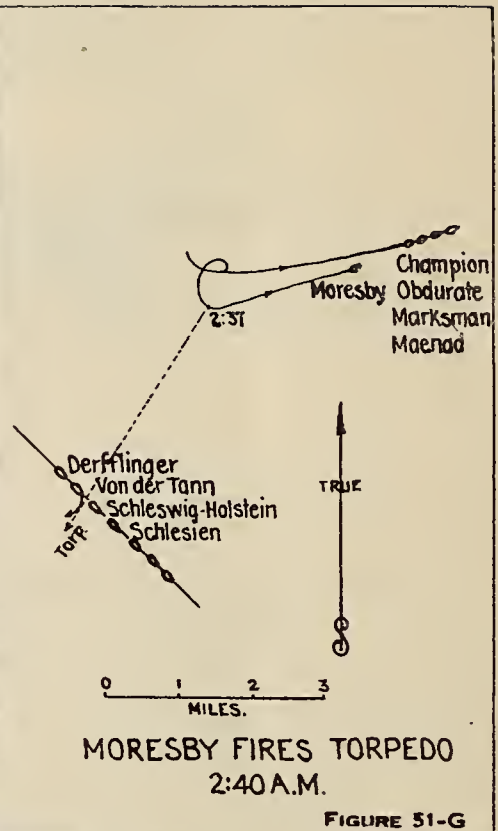
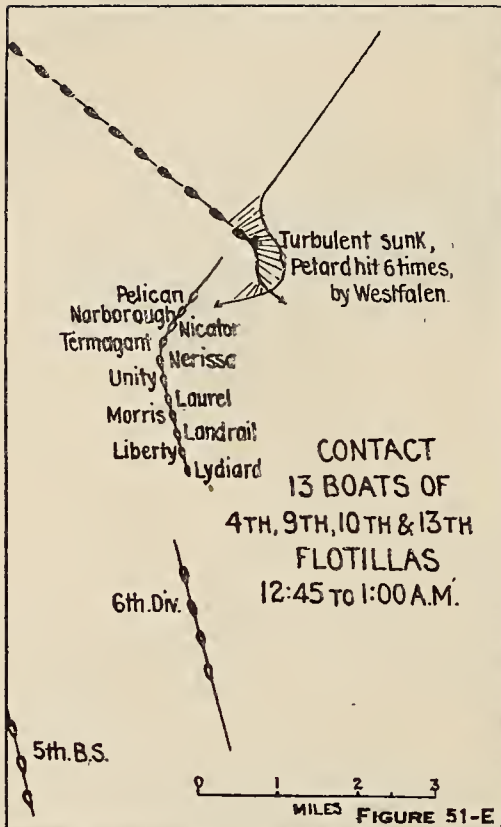
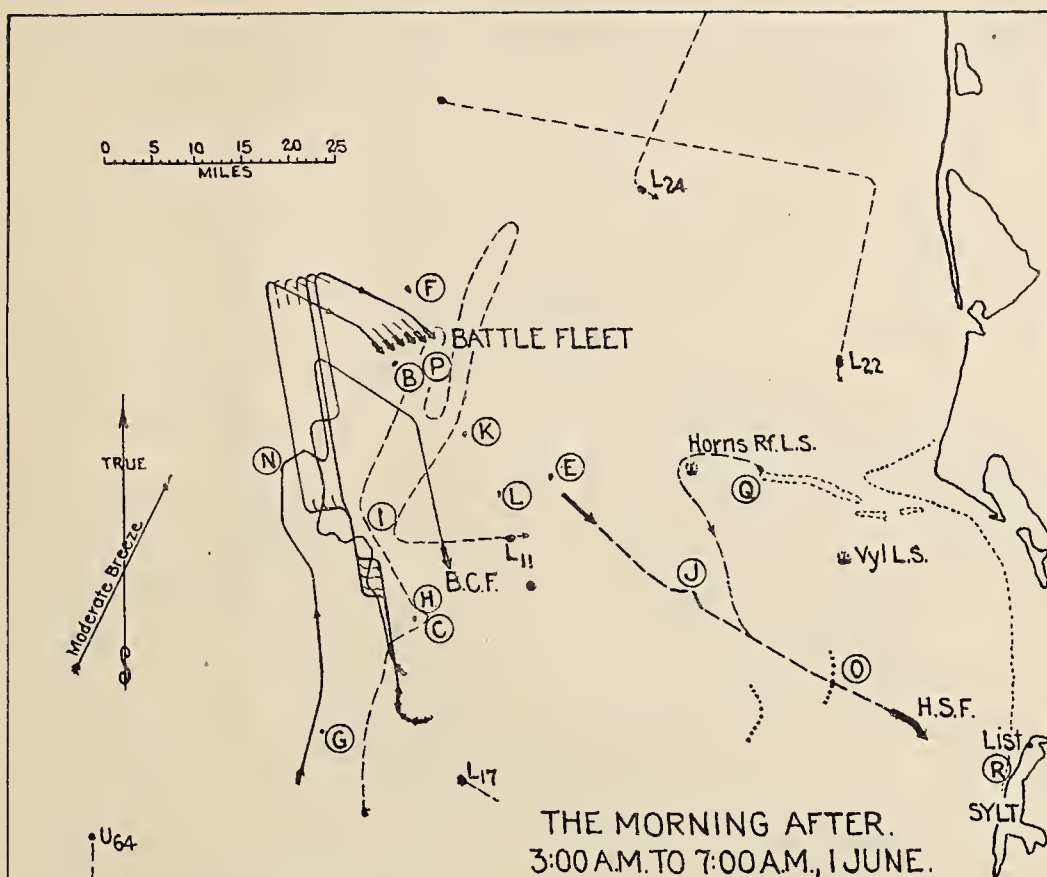


FIGURE 51-D





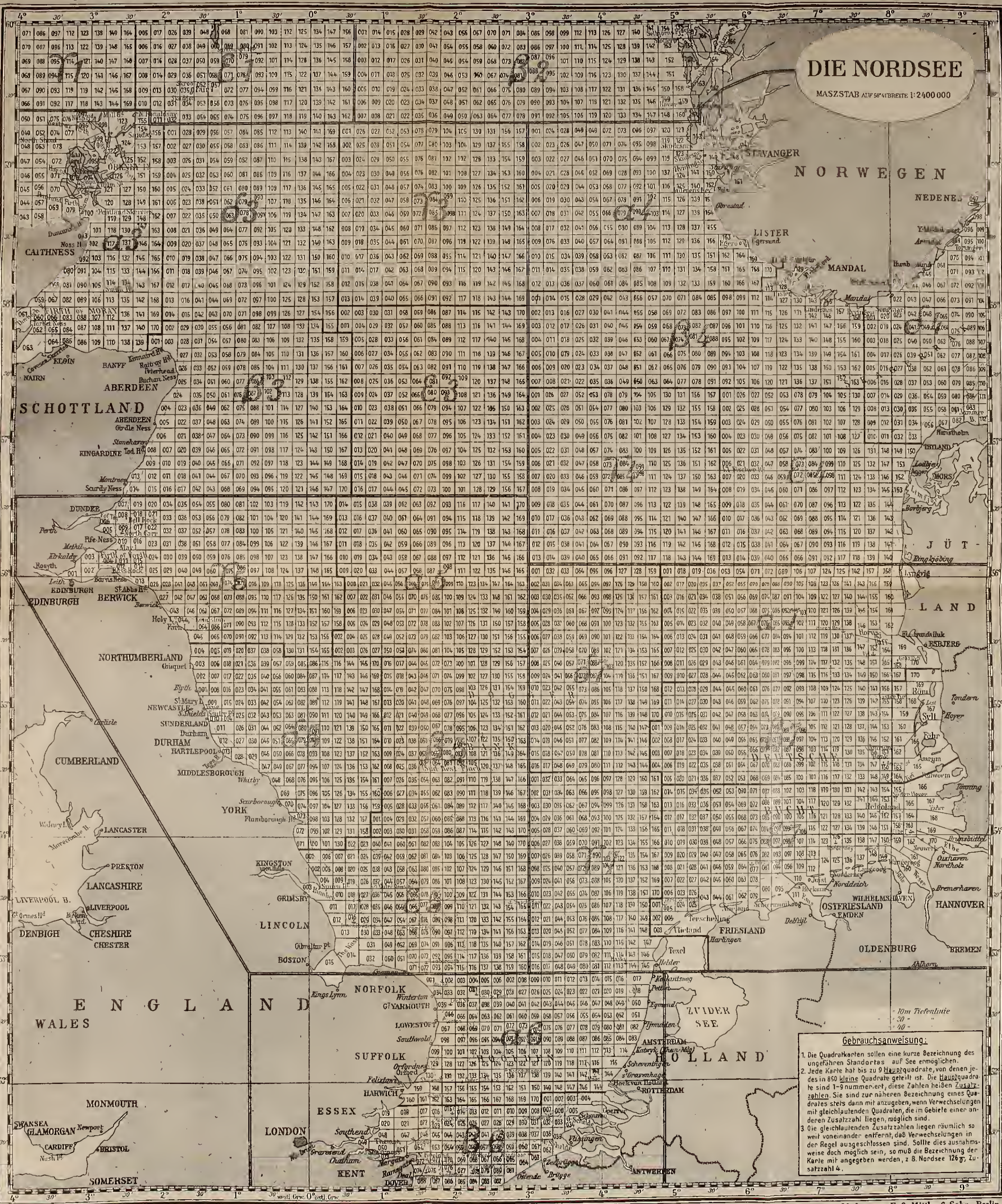
- A. - 3:10 L24 reports twelve large enemy vessels in the Skaggeerrak. (not shown)
- B. - 3:12 Position of damaged German light cruiser at 3:00 as reported by Admiralty. This was the Elbing.
- C. - 3:15 Burney transfers flag to Revenge and the Marlborough and Fearless proceed toward the Tyne. The 6th Division was unable to rejoin Battle Fleet until evening.
- D. - 3:20 Harwich Force, 5 light cruisers and 13 destroyers, ordered to join C-in-C. (not shown)
- E. - 3:20 Position of High Seas Fleet at 2:30 as reported by Admiralty, course SE. by S. Speed 16 knots.
- F. - 3:30 G40, G38, G37 and V45 engage Champion and four destroyers; G40 and V45 each fire two torpedoes, G40 damaged and towed by G37.
- G. - 3:30 L11 reports twelve British battleships, in reality the B.C.F.
- H. - 3:40 L11 reports six battleships, in reality rear of German B.F.
- I. - 4:00 L11 reports three enemy battle cruisers, in reality the 6th Division.
- J. - 4:08 Scheer orders return to port by divisions.
- K. - 4:25 Rostock makes contact with Dublin and is sunk by own personnel after crew is transferred to S54, V71 and V73, which withdraw toward the Danish coast.
- L. - 4:31 Dublin reports one cruiser and two destroyers, cruiser was the Rostock.
- M. - 4:34 Harwich Force sails from Harwich. (not shown)
- N. - 4:40 Jellicoe informs Beatty that H.S.F. has returned to port.
- O. - 5:20 Ostfriesland mined.
- P. - 5:30 Admiralty reports Elbing still afloat at 3:47. Actually the Elbing had been sunk before 2:00 A.M.
- Q. - 5:40 Seydlitz backs off Horns Reef, rounds L.S., and with six boats of Flotilla VII joins rear of H.S.F. at 10 knots speed.
- R. - 6:40 Seaplanes commenced scouting from List.
- S. - 7:00 All airships recalled.

FIGURE 52

Karte 5. Quadratkarte.

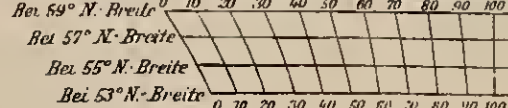
Zu: Der Seekrieg in der Nordsee. Bd. I.

Karte 5.

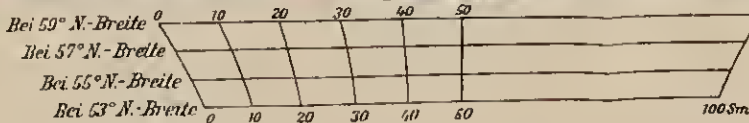


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